



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

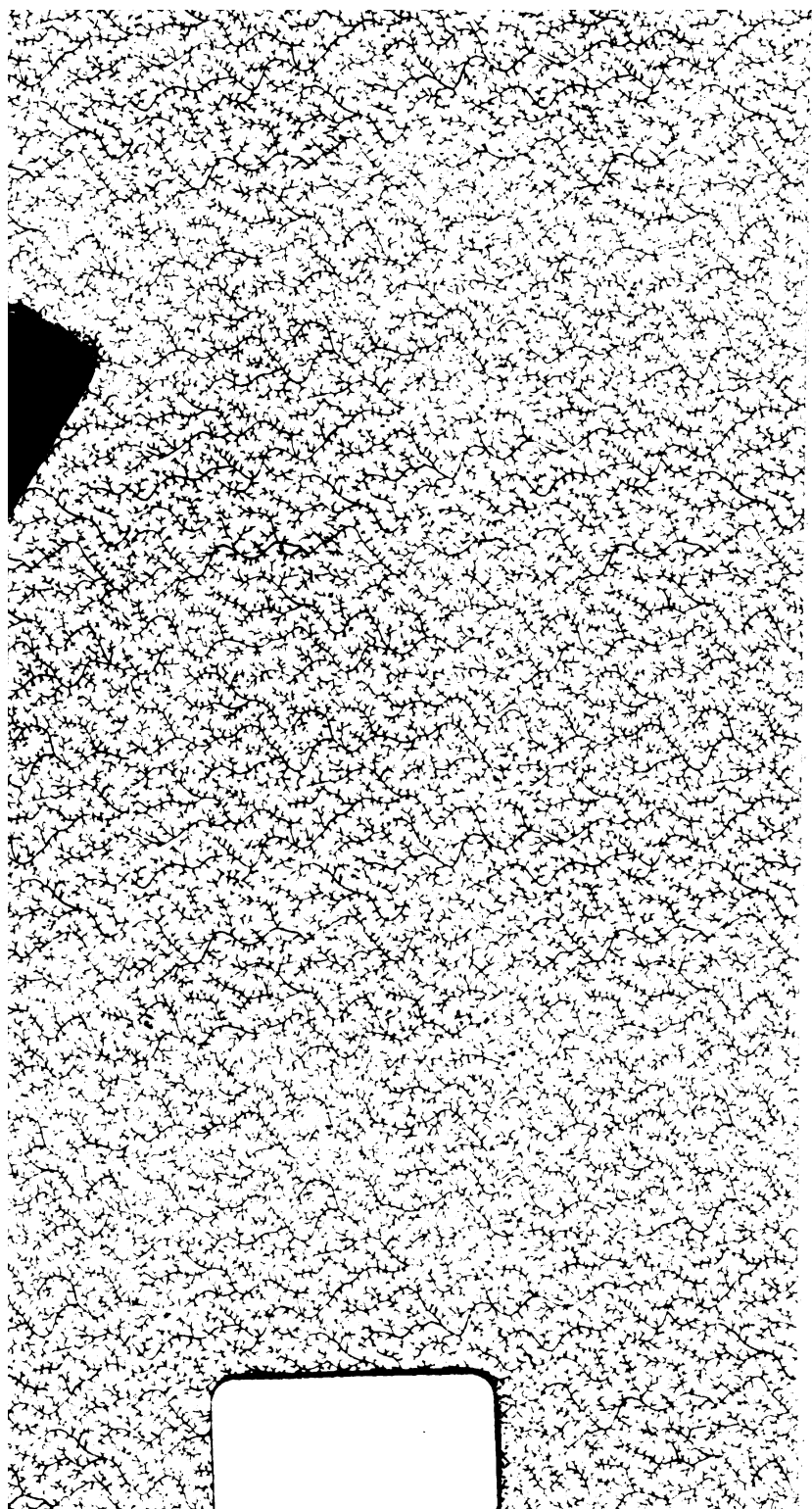
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



1914

APR 27 1914

THE
MONTHLY REVIEW;
OR
LITERARY JOURNAL,
ENLARGED:

From SEPTEMBER to DECEMBER, inclusive.

M,DCCCI.

With an APPENDIX.

"Plus apud nos vera ratio valebit, quam vulgi opinio."

CICERO.

VOLUME XXXVI.



LONDON:

Printed by A. Strahan, Printers-Street,

For R. GRIFFITHS; and sold by T. BECKET, in Pall Mall.

M,DCCCI.

W3M
2004
VIA 9811

T A B L E

OF THE

TITLES, AUTHORS' NAMES, &c. of the Publications reviewed in this Volume.

N. B. FOR REMARKABLE PASSAGES in the *Criticisms* and *Extracts*, see the INDEX, at the End of the Volume.

For the Names, also, of the Authors of new Dissertations, or other curious Papers, published in the MEMOIRS and TRANSACTIONS of the Scientific ACADEMIES at Home or on the Continent, and also for the Titles of those Dissertations, &c. of which Accounts are given in the Review,—see the *Index*, printed at the End of each Volume.

A

B

BERCROMBY, Sir R. Lines, and an Ode, on his Death, Page 215.
Addington on the Cow-pox, 93
Agriculture. See *Faustmann*, *Bordley*, *Simonde*.
Albin (Mr.) on the Cow-pox, 94
Albin's (Dr.) General Biography, Vol. II. 368
Allardye's 2d Address to Bahk Priests, 330
Angling. See *Taylor*.
Annales de Chimie, Nos. 112—117, 491
Ambros Essence of Malout, Part II. 445
Anna on the Manners of the Egyptians, 278
Antient Metaphysics, Vol. VI. 109
Apothecary. See *Lucas*.
Arbogast on the Calculus of Derivations, 524
Archæologia, Vol. XIII. 413
Artis, Society for, their Transactions, Vol. XVIII. 337

Babington's new System of Mineralogy, 54
Bacon on the Theories of Cullen, Brown, and Darwin, 210
Baldwin's Political Recollections respecting Egypt, 197
Bank. See *Allardye*.
Barnantim's New Joe Miller, Vol. II. 445
Barton on the Natural History of Pennsylvania, 352
Bass, Thorough, Guide to, 303
Bath Waters, Treatise on, 431
Beaulieu's Historical Essays on the French Revolution, 508
Beddoes on the Consumptive, 364
Benxet on the Christian Religion, 322
Ben's Meteorological Journal, 90
Bible. See *Culmer*.
Bingley's Tour in North Wales, 386
Biography, General, Vol. II. 168
Bos Constrictor, 108
Bombardier, 320

A A

Bonnairs

CONTENTS.

<i>Essays Philosophical and Chemical,</i>	110
—— from Montaigne,	442
<i>Estlin's Sermon,</i>	447
<i>Evans's (Rev. John) Sermon,</i>	224
—— (Rev. J.) Tour in North Wales,	389

F

<i>Farmers, Case of,</i>	207
<i>Ferriery. See Lane, Coleman, Manual, Moorcroft.</i>	
<i>Father's Instructions, Part III.</i>	442
<i>Fewer on the Cow-pox,</i>	93
<i>Fewer, Yellow. See Rusb, Chubolm, Gillespie.</i>	
<i>Finance. See Wakefield.</i>	
<i>Flower on the Peace,</i>	318
<i>Fowrey's Elements of Chemistry,</i>	419
<i>Fox's Speech on the Peace,</i>	318
<i>Franklin's History of Egypt,</i>	204
<i>French Republic, Travels in,</i>	134
—— Revolution. <i>See Beaulieu.</i>	
<i>Friendly Societies, Observations on,</i>	444
<i>Frigrific Principle. See Brew.</i>	
<i>Fullerton's Letter to Lord Carrington,</i>	101

G

<i>Graiss of France,</i>	322
<i>Grain, Madame, her Rival Mother,</i>	186
<i>Geology. See Kirwan.</i>	
<i>Gibbs on Bath Waters,</i>	431
<i>Gillespie on Diseases in the Leeward Islands.</i>	434
<i>Gleanings in England,</i>	421
<i>Gosse's Narrative of Events at Saint Marreu,</i>	435
<i>Govt. See Whyte.</i>	
<i>Great Britain, Strength of. See Clarke.</i>	
<i>Griffith's Memoirs of Angelus Politianus,</i>	139
<i>Grison, Madame, Poems from,</i>	98
<i>Gulic's Collection of Oriental MSS.</i>	219
<i>Gunner, little,</i>	320
<i>Gwillim's Collection of Acts,</i>	326
<i>Gymnastics for Youth,</i>	334

H

<i>Hardinge's Essence of Malone, Part II.</i>	445
<i>Hayley's Essay on Sculpture,</i>	113
<i>Helvetia, History of,</i>	19
<i>Hesse's Elements of Chemistry,</i>	406
<i>Hill's Apology for Sunday Schools,</i>	105
<i>History of General Moreau,</i>	501
—— <i>See Domairen, Naylor, Laing, Rumb.</i>	

<i>History, Natural. See Natural.</i>	
<i>Hodson's Sermon,</i>	448
<i>Hoele's Translation of Metastasio,</i>	245
<i>Horse. See Coleman, Lane, Moorcroft.</i>	
<i>Horsley, Bishop, his Visitation Charge,</i>	37
——, ——, on Mathematics,	408
<i>Hospital Pupil,</i>	328
<i>Haughton's Sermon,</i>	223
<i>Houlton's Review of the Musical Drama,</i>	97
<i>Howe, Earl of, Monody on,</i>	438
<i>Howe's Two Discourses,</i>	103
<i>Hull on Pblegmata Dolens,</i>	433
<i>Hurdin on Psalm and Prophecy,</i>	269
<i>Husbandry. See Bowley.</i>	

I & J

<i>Jacobinism,</i>	323
<i>Jameson's Mineralogy,</i>	377
<i>Il Luttuoso, ed il gaudioso,</i>	218
<i>India, View of,</i>	37, 173
<i>Inflammation, Dissertation on,</i>	290
<i>Information for Cottagers,</i>	443
<i>Inspiration. See Dick.</i>	
<i>Johnstone's Medical Jurisprudence,</i>	209
<i>Journals, Public, Spirit of,</i>	220
<i>Ireland. See Deveraux.</i>	
<i>Irish Academy, Transactions of, Vol. VII.</i>	1

K

<i>Kearley's Traveller's Guide,</i>	227
<i>Kemble and Cooke, in the Character of Richard III. Review of,</i>	335
<i>Kirwan's Geological Essays,</i>	380
<i>Kollmann's Guide to Thorough Bass,</i>	303

L

<i>La Croix on Differences and Series,</i>	498
<i>La Harpe's Lectures, Vols. IV—X.</i>	465
—— Literary Correspondence,	473
<i>Laing's History of Scotland,</i>	121
<i>Lane on English Farriery,</i>	100
<i>Law, Military, Essay on,</i>	262
<i>Lawn on the Corn Trade,</i>	206
<i>Leeward Islands. See Gillespie.</i>	
<i>Le Grand's Fabliaux, Vol. II.</i>	276
<i>Lekain, H. L. Memoirs of,</i>	517
<i>Lettson's Naturalist's Companion,</i>	89
—— Natural History of the Tea Tree,	420
<i>Life, Animal. See Rusb.</i>	

Lime

Lines on the Death of Sir R. Aber-
cromby, 215

Literary Miscellanies. See D'Israeli.

Literary. See La Harpe. See Mausel.

Little Bombardier, 320

London, Royal Society, Philosophical

Transactions of, Part III. 1800,

Part I. for 1801, 241

Lucas on the Education of a Surgeon

Apothecary, 432

Lycaum, Lectures at. See La Harpe.

Agrie Tales, 26

M

Mackenzie's Sermon, 255

Macnab's Letter to Whitmore, 48

Macnab's Observations on the Inland

supply of Coals, 51

Madness, Essay on, 209

Mahone, another Essence of, Part II.

445

Mant's Veritas on Dr. Warton, 323

Manual for Coachmen, &c. 101

Marcon, St. See Gumm.

Marib's Translation of Michaelis, Vols.

III. and IV. 395

Mascul's Book of Customs, 429

Mathematics. See Horsley.

Matilda, or the Welsh Cottage, 99

Maunder's Translation of DeMille's Homme

des Champs, 236

Maurus. See Brissau.

Medical Inquiries, Vol. V. 81

— Jurisprudence, 209

Medicine, See Burserius. See Clarke.

Memoirs of Mrs. Robinson, 344

— of H. L. Lelain, 517

Metaphysics. See Monbodo.

Meastasio, Translation of, 295

Meteorological Journal, 90

Mausel's Guide to the History of Litera-

ture, continued, 536

Michaelis's Introduction to the New Tes-

tament, Vols. III. and IV. 395

Military College, Observations on, 435

Millennium, Discourse on, 103

Mineralogy. See Babington, Jameson,

Patrin.

Minister, Advice to, 102

Minutal Youth, 217

Monbodo, Lord, Antient Metaphysics,

Vol. VI. 109

Monogue on the Law of set-off, 326

Moncigne, Select Essays of, 442

Moecraft on shoeing Horses, 100

Morven, General, History of, 501

Morgen. See Wakefield.

Morier's Memoir of a Campaign in

Egypt. 314

N

Napleton's Advice to a Minister, 209

Narrative of Sarah Shade, 332

— of Sir James Saumarez's

Squadron, 414

— of events at St. Marcon, 435

Natural History. See Barpin, Buffon,

Lettsom.

Naturalist's Companion, 29

Navy, Medical department of. See

Renwick.

Naylor on Ulcers, 212

Naylor's History of Helvetia, 19

New Inventions for the Ruptured, 95

— Joe Miller, Vol. II. 445

Noble's Ophthalmys, 228

Natology, 328

O

Observations on Colquhoun on Police,

221

— on the Military College,

435

Ocean, a Poem, 437

Old Nick, 58

Olimpia, drama, 97

Ophthalmys. See Noble.

Oriental Manuscripts, Catalogue of,

219

Outlines of the Globe, Vols. III. and IV.

37. 173

Oxen. See Tatbam.

P

Parkinson's Villager's Friend, 329

—'s Chemical Pocket Book, 328

—'s Hospital Pupil, 18

Paterson's Anal. View of a popular

Work, 110

Patrin's History of Minerals, 533

Peace, a Poem, 437

— See Fox, Flower, Robinson, Vi. w,

Thoughts, Causes, Pratt.

Pennant's Outlines of the Globe, Vols.

III. and IV. 37. 173

—'s Journey to the Isle of Wight,

357

Pennsylvania, Natural History of, 392

— Travels in, 449

Perival's Father's Instructions, Part III.

442

Petrarca, rima scelo di, 26

Philosophical Transactions of the R. S.

Part III. for 1800. 67

— Part I. 1801. 241

Philosophy, Experimental. See Thomson.

Phlegmasia

CONTENTS.

vii

<i>Phlegmatia Dolens.</i> See <i>Hull.</i>	
<i>Phlogiston.</i> See <i>Pringle.</i>	
<i>Physician's Portable Library,</i>	433
<i>Flow's</i> sketches for Country Houses,	163
<i>&c.</i>	163
<i>Phosorus</i> of Solitude,	95
<i>Plowden's</i> (Mrs.) <i>Virginia</i> , an Opera,	97
<i>Plow's</i> Memorials of the Tufton Family,	107
<i>Poems</i> , chiefly Sonnets,	145
— See <i>Robinson, Courtier, Cowper,</i>	
<i>Hayley, Maunde, Way, Mum, Bowles,</i>	
<i>Thomson, Deroudy</i>	
<i>Pollux.</i> See <i>Observations.</i>	
<i>Polidori—Olympia, Drama,</i>	97
<i>Pollux.</i> Memoirs of,	139
<i>Political Essays,</i>	79
<i>Port Wine.</i> See <i>Reasons.</i>	
<i>Power</i> , Legislative. See <i>Bonnairs.</i>	
<i>Pratt's</i> (P.) <i>Bea Constant</i> ,	106
— on Peace and War,	107
—'s (J.) <i>Gleanings</i> in England,	421
<i>Pringle</i> on Phlogiston,	250
<i>Pringle.</i> See <i>Bonnairs.</i>	
<i>Prophecy.</i> See <i>Hurd.</i>	
<i>Proposals</i> on the Price of Corn,	331
<i>Provisions.</i> See <i>Butcher.</i>	
<i>Psalm</i> and Prophecy. See <i>Hurd.</i>	
<i>Quintessence</i> , Capital, Thoughts on,	218

R

<i>Reasons</i> for Port Wine, as a Medicine, being free of Duty,	211
<i>Remarks</i> on the Character of Richard III.	334
<i>Reswick's</i> Memorials,	209
<i>Respiration</i> , disordered. See <i>Erp.</i>	
<i>Review</i> of the Principles which exclude Clergymen from the House of Commons,	443
<i>Richard III.</i> See <i>Remarks.</i> See <i>Kemble.</i>	
<i>Rime Vierge di Patrica,</i>	96
<i>Rival Mothers,</i>	186
<i>Robert's</i> Christianity vindicated,	164
<i>Robinson</i> , Mrs. <i>Lyric Talent,</i>	26
— — — — — <i>Memoirs</i> of,	344
— — — — — (Rev. T.) <i>Address</i> on the Peace,	320
<i>Robson's</i> Visitation Sermon,	35
<i>Robtson</i> , Bp. of. See <i>Horsley.</i>	
<i>Romances.</i> See <i>D'Israeli.</i>	
<i>Rupures</i> , Inventionis tot,	95
<i>Russ's</i> Medical Inquiries, Vol. V.	81
— on the Yellow Fever,	91
—'s <i>Three Lectures</i> on Animal Life,	188

<i>Russia</i> , Convention with, vindicated,	329
--	-----

S

<i>Salmasson's</i> Gymnastics,	334
<i>Sanders's</i> Sermon,	225
<i>Saunders</i> , Sir James. See <i>Narrative.</i>	
<i>Saunders</i> on Mineral Waters,	224
<i>Scotland</i> , History of,	121
<i>Scottish</i> Isles, Mineralogy of,	177
<i>Sculpture</i> , Essay on,	113
<i>Sermon</i> on Cruelty,	447
<i>Sermons</i> , Collective. See <i>Howe.</i> See <i>Mackenzie.</i>	
— — — — — Single, 15. 221—224.	447
— — — — —	448
<i>Set-off</i> , Law of,	326
<i>Shade</i> , Sarah, Narrative of,	338
<i>Show</i> on National Education,	218
<i>Shoe-Black</i> , a Poem,	98
<i>Simonds</i> on the Agriculture of Tuscany,	423
<i>Singing</i> , Treatise on,	148
<i>Sinib's</i> Physician's Portable Library,	433
<i>Sound</i> and Baltic considered,	213
<i>Spirit</i> of Public Journals, Vols. III. and IV.	220
<i>Sunday</i> Schools, Hints on,	104
— — — — — <i>Apology</i> for,	105
<i>Surgeon-Apothecary.</i> See <i>Lucas.</i>	
<i>Suspria</i> Oremi,	438
<i>Sutton</i> on Consumptions,	90
<i>Switzerland</i> , Sorrows of,	334

T

<i>Tatham</i> on the Use of Oxen,	207
<i>Taylor</i> on Angling,	331
<i>Tea Tree</i> , Natural History of,	430
<i>Testament</i> , New. See <i>Michaëlis.</i>	
<i>Thomson</i> (A. T.) on Experimental Philosophy,	90
— — — — —'s Ode to the Memory of Sir K. Abercromby,	216
— — — — —'s (John) Edition of <i>Fourcroy</i> ,	419
<i>Thoughts</i> on the Preliminaries,	319
<i>Tibbs</i> , Acts relative to,	326
<i>Toogood's</i> Sermon,	222
<i>Townsend</i> on Sunday Schools,	104
<i>Transactions</i> of the Royal Irish Academy, Vol. VII.	1
— — — — — of the R. S. of Edinburgh,	
Vol. V. Part I.	151
— — — — — of the Society for Arts, &c.	
Vol. XVIII,	337
— — — — — <i>Trautner's</i>	

<i>Traveller's Guide,</i>	221
<i>Travels.</i> See <i>Byggé, Pennant, Bingley,</i>	
<i>Evans, Crèvecoeur.</i>	
<i>Trotter's Suspiria Oceani,</i>	438
<i>Tufton Family, Memorials of,</i>	107
<i>Tuscany, Agriculture of,</i>	483
<i>Tythes.</i> See <i>Cove.</i>	
<i>Tytler on Military Law,</i>	261

V and U

<i>Vaughan—Oratio Harveiana,</i>	434
<i>Venercal Rose.</i> See <i>Butter.]</i>	
<i>View of the Preliminaries,</i>	318
<i>Villager's Friend,</i>	327
<i>Vindication of the Convention</i>	
<i>with</i>	
<i>Russia,</i>	329
<i>Virginia, an Opera,</i>	97
<i>Ukers.</i> See <i>Naylor.</i>	

W

<i>Wade-Gary on Capital Punishments,</i>	218
<i>Wakefield's (Gilb.) Essays from Dio</i>	
<i>Chrysostom,</i>	194
<i>———'s (D.) Investigation of Mor-</i>	
<i>gan on Finance,</i>	211
<i>Wales, North.</i> See <i>Bingley.</i> See	
<i>Evans.</i>	
<i>Walker on the Contracting Cavities,</i>	95
<i>War.</i> See <i>Bowles.</i>	
<i>Watson, Dr. Verses on,</i>	323
<i>Waters's Sermons,</i>	213
<i>Waters, mineral.</i> See <i>Gibbes.</i> See	
<i>Saunders.</i>	
<i>Way's Translation of Le Grand's Fab-</i>	
<i>liaux, Vol. II.</i>	276
<i>Weights and Measures.</i> See <i>Brissot.</i>	
<i>Whyte on the Gout, &c.</i>	210
<i>Wight, Isle of, Journey to,</i>	357
<i>Williams's Christian Preacher,</i>	182
<i>Woodville on the Cow-pox,</i>	93

ERRATA in Vol. XXXVI.

- Page 100. l. 11. for '*ocurrere*,' r. *occurrere*.
 113. l. 16. for '*generalt one*,' r. *general tone*.
 162. l. 5. note, for '*Cartesiumidem*,' r. *Cartesium idem*; and for *Franciscus*, r. *Franciscus*.
 187. l. 10. from bott. put a comma at *reputation*, and take it away from *apathy*.
 204. l. 18. for '*bumect*,' r. *humect*.
 205. l. 23. r. in *the hands*; and l. 24. take away the quotation comma before *A kind*, &c.
 306. l. penult. for '*when*,' r. *where*.
 413. l. 27. r. '*and it is communicated*, &c.

THE MONTHLY REVIEW,

For SEPTEMBER, 1801.

ART. I. *Transactions of the Royal Irish Academy.* Vol. VII. 4to.
pp. 380. 11. 1s. Boards. Dublin, 1800; London, Elmsley.

OUR readers have been duly presented with accounts of the former Transactions of this learned Society, at the time of their appearance; and we doubt not that they will participate with us in the pleasure which we feel, on receiving every additional proof of the progress of the arts and the cultivation of science. We hope that the political Union, which has been formed between our two islands, will prove favourable to the literary as well as to all the other interests of our Sister Country; and that in both the seats of learning and of government will co-operate with mutual amity and reciprocal advantage.

Of the VIth volume of these records, we gave a copious analysis in M. R. vol. xxix. N. S. p. 15, 388; and we now proceed to pay equal attention to the present, the papers in which are arranged in the order hitherto observed.

SCIENCE.

On the Precession of the Equinoxes. By the Rev. Matthew Young, D. D. M. R. I. A. — It is known to mathematicians that Newton, calculating the effects of the sun's force in producing the precession of the equinoxes, fell into an error, and made it less by one half than the truth. Since his time, the problem has been rigorously solved; first by D'Alembert, to whom the theory of gravitation is indebted for one of its strongest confirmations. That great mathematician determined analytically the motions of the earth's axis, on the hypothesis that the strata of the terrestrial spheroid had any form and density whatever; and he not only found his results agreeable to observation, but he ascertained the true dimensions of the small ellipse described by the pole of the earth.

The principal object of the present memoir is to discover distinctly in what the fallacy of Newton's reasoning consists;

VOL. XXXVI.

B

and

and to this end, the learned author examines the three lemmas which Newton prefixes to his 39th Proposition, and then the several corrections proposed to be made by Simpson, Frisi, Milner, and Länden, in order to obtain an accurate result. This examination is performed with much perspicuity; and Dr. Young properly acquiesces in the correction made by Landen. This acute and excellent mathematician, in the thirteenth of his Mathematical Memoirs, vol. ii. p. 50, has shewn that the principal mistake, in Newton's process, arose from not considering the centrifugal force of the particles of the revolving ring of moons acting in opposition to the solar force, while such a ring has a tendency to revolve about a momentary axis, in consequence of the compound motion which it must necessarily have on becoming rigid, agreeably to the supposition.

General Demonstrations of the Theorems for the Sines and Cosines of Multiple circular Arcs, and also of the Theorem for expressing the Powers of Sines and Cosines by the Sines and Cosines of Multiple Arcs: to which is added a Theorem, by help whereof the same Method may be applied to demonstrate the Properties of the Multiple Hyperbolic Areas. By the Rev. John Brinkley, A. M. Andrews' Professor of Astronomy, and M. R. I. A. — These theorems are familiar to mathematicians: but the object of the present author is to give more natural and correct demonstrations of them than have hitherto appeared. He deduces these demonstrations from the circle by the help of the doctrine of combinations; and the method is this:—let S , C , be symbols for a sine and cosine, A , A' , A'' , A''' , &c. arcs:—then

$$\begin{aligned} S.(A+A') &= S(A) \times C(A') + S(A') \times C(A) \\ \text{and } C.(A+A') &= C(A) \times C(A') - S(A) \times S(A') \\ \therefore S.((A+A')+A'') &= S.(A+A').C(A'') + S(A'').C.(A+A') \\ &= \{ S(A) \times C(A') \times C(A'') + S(A') \times C(A) \times C(A'') \\ &\quad + S(A'') \times C(A) \times C(A') - S(A) \times S(A') \times S(A'') \} \end{aligned}$$

In like manner, the $S.((A+A'+A'')+A''')$ may be found; and by observing the way in which the successive values of $S.(A+A')$, $S.(A+A'+A'')$, &c. are formed, it will appear that, if A , A' , A'' , &c. be all equal,

$$\begin{aligned} S.(A+A+A-) \text{ or } S.(nA) &= nC(A) \times S(A) - \frac{n \cdot n-1 \cdot n-2}{1 \cdot 2 \cdot 3} \\ &\times C(A) \times S^3(A) + \&c. \end{aligned}$$

$$\text{and that } C.(A+A+A-) = C(A) - \frac{n \cdot n-1}{1 \cdot 2} \&c.$$

In the next place, Mr. Brinkley demonstrates what is likewise a known theorem, that

$$S. (nA) = 2 \times C(A) - (n-2) \cdot 2 \times C(A) + \&c.$$

how this theorem is deduced thus; substitute for n successively the values, 2, 3, &c. and eliminate $C(A)$; then it may be conjectured that the law for $S. (nA)$ is as it is given; and in order to complete the demonstration, the conjecture is proved to be right. In these proofs, as the French express it, *il y a*

quelque chose à désirer, the first part, viz. $S. (nA) = nC(A) \times S(A) - \frac{n(n-1)}{1 \cdot 2 \cdot 3} \&c.$ we think, wants perspicuity;

and the latter part, viz. $S. (nA) = 2 \times C(A) - (n-2) \cdot 2 \times C(A) + \&c.$ is certainly indirect. The methods at which Mr. B. glances in the beginning of his memoir, as being either improper, (as employing imaginary quantities,) or unsatisfactory, (as founded on an analogy supposed to exist between the circle and the hyperbola,) or imperfect, (as obtained by induction,) are probably those given by Euler in his *Introductio in Analysin Infinitorum*, by De Moivre in his *Miscellanea Analytica*, and by Thomas Simpson in his *Miscellaneous Tracts*; and these methods are beyond a doubt unsatisfactory. We shall be excused, perhaps, if we deviate a little from the strict line of our duty, to shew how the formula for the sine and cosine of the multiple arc may be deduced by the method of finite differences, or of increments.

By the known theorems of trigonometry,

$$S. (nA) = S. ((n-1)A + A) = S. ((n-1)A) + C(A) + S(A) \times C. ((n-1)A)$$

$$\text{and } S. ((n-2)A) = S. ((n-1)A - A) = S. ((n-1)A) \times C(A) - S(A) \times C. ((n-1)A)$$

$$\therefore S. (nA) = 2 S. (n-1A) \times C. (A) - S. ((n-2)A)$$

$$\text{Let } S. (nA) = x_n, \cos A = y$$

$$\text{then } x_n = 2 y x_{n-1} - x_{n-2}$$

$$\text{Let } n=2 \therefore x_2 = 2 y x_1,$$

$$n=3 \therefore x_3 = 2 y x_2 - x_1 = 4 y^2 x_1 - x_1,$$

$$n=4 \therefore x_4 = 2 y x_3 - x_2 = 8 y^3 x_1 - 4 y x_1;$$

$$\&c. \quad \&c. \quad \&c.$$

Assume, therefore, for x_n this form,

$$x_n = A_n y^{n-1} + B_n y^{n-3} + C_n y^{n-5} + \&c.)$$

$$\text{and since } x_n = 2 y x_{n-1} - x_{n-2}$$

$$\therefore x, (A_n y^{n-1} + B_n y^{n-3} + \&c.) = \begin{cases} 2x_1 (A_{n-1} y^{n-1} + B_{n-1} y^{n-3} + \&c.) \\ -x_1 (A_{n-2} y^{n-3} + B_{n-2} y^{n-5} + \&c.) \end{cases}$$

hence, comparing terms affected with the same powers of y ,

$$A_n = 2 A_{n-1}$$

$$B_n = 2 B_{n-1} - A_{n-2}$$

$$C_n = 2 C_{n-1} - B_{n-2} \&c.$$

Now these coefficients do not exist together; the least index of B is 3, of C 4, &c. since the equations, by which these coefficients are to be determined, do not commence before these values of $n=3$, $n=4$, &c.

Hence, integrating $A_n = 2^n \mathcal{Q}$: but when $n=1$, $A_1=1$

$$\therefore \mathcal{Q} = \frac{1}{2} \therefore A_n = 2^{n-1} \therefore A_{n-2} = 2^{n-3}$$

again $B_n = 2 B_{n-1} - 2^{n-3}$; and integrating

$$B_n = 2^{n-3} (n-2) \&c.$$

$$\text{hence } x_n = S. (nA) = \sin(A) \left\{ \begin{aligned} &2^{n-1} \times y^{n-1} \frac{n-2}{2} 2^{n-3} y^{n-3} \\ &+ \frac{(n-3)(n-4)}{1.2} y^{n-5} \&c. \end{aligned} \right.$$

The original of this method was given by M. De La Place in the Turin Memoirs, in a paper intitled, *Recherches sur le Calcul Intégral, aux différences infiniment petites et aux différences finies.*

The theorems for the sine and cosine of the multiple arc are followed by theorems for the powers of the sines and cosines; and Mr. Brinkley's demonstration of them is partly like that given by Thomas Simpson, p. 77. *Miscellaneous Tracts*, but is here rendered somewhat more general by considering how the quantities are involved, and thence determining the coefficients from the doctrine of combinations.

Mr. Brinkley's and Simpson's methods begin the same: thus,

$$2 (\cos. A)^2 = \cos. (A+A) + \cos. (A-A)$$

$$= \cos. 2A + 1$$

$$\therefore 2^2 (\cos. A)^2 = 2 \cos. 2A \cos. A + 2 \cos. A$$

$$= \cos. 3A + \cos. A + 2 \cos. A$$

$$= \cos. 3A + 3 \cos. A$$

Hence, if we suppose $2^{n-1} (\cos. A)^n = \cos. nA + n \cos. (n-2) A$ &c. then $2^n (\cos. A)^{n+1}$ will $= \cos. (n+1)A + (n+1) \cos. (n-1)A$ &c. or if the law be true for n , it is true for $(n+1)$: but, taking n any finite number by actual involution, we find the law true, and therefore it is true for all numbers superior to n . This is very nearly the method of Simpson: but, strictly speaking, it

is no proof. If, from observation on the law that the coefficients appear to follow in particular instances, the law be inferred to be general, then the proof (if there be any meaning in words) is inductive; and if we conjecture the law for the index n , and prove it true for the superior indices $(n+1)$, $(n+2)$, &c. the proof is still inductive, since the conjecture must be formed by a process which is really a process of induction.

The several varieties of the formula consequent on the different values assigned to n are given by Mr. B. with the greatest exactness and perspicuity; and the memoir, on the whole, reflects great credit on its author.

Remarks on the Velocities with which Fluids issue from Apertures in the Vessels which contain them. By the Rev. Matthew Young, D. D. &c.—Newton (vol. 2.) was the first who considered this subject: but it has since been investigated theoretically and experimentally by several mathematicians, *Bernouilli, D'Alembert, Du Buat, and Venturi*; and within these few years, Professor Vince of Cambridge has printed, in the Transactions of the Royal Society, the results of experiments made by him in a public capacity, relative to the time of emptying vessels. The remarks and reasonings of Dr. Young are worthy of notice;—especially his explanation of the diminution of the time of emptying vessels, which ensues on inserting narrow tubes in them.

A new Method of resolving Cubic Equations. By Thomas Meredith, A. B. Trinity College, Dublin.

Let an equation be $x^3 + px^2 + qx + r = 0$

The reciprocal equation is $rx^3 + qx^2 + px + 1 = 0$

If $x = rx$, it becomes $x^3 + qx^2 + prx + r^2 = 0$;

consequently, $x^3 + qx^2 + prx + M^2 = M^2 - r^2$.

Let the root be $a + a$; then $q = 3a$, $pr = 3a^2$ $M^2 = a^3 = \frac{q^3}{27}$:

consequently, in order that the equation may be a perfect cube, q^2 must $= 3pr$. Hence, in any equation, $x^3 + px^2 + qx + r = 0$: for x write $z + e$: investigate the value of e that renders $q^2 = 3pr$: then transform the equation into the reciprocal equation that has 1 for its first term; and make, by adding or subtracting a certain quantity to each side of the equation, the last term on the left hand side $= \frac{q^3}{27}$; then extract the cube root on each side, and $x + \frac{q}{3} = \sqrt[3]{\frac{q^3}{27} - r^2}$

This method of solving cubic equations has no advantage over that of Cardan, in being more perspicuous, more direct,

or more general. Like Cardan's method, it also has its irreducible case.

On the Force of Testimony in establishing Facts contrary to Analogy. By the Rev. Matthew Young; D.D. &c.—“*La Philosophie* (says D'Alembert) *prend, pour ainsi dire, la teinture des Esprits ou elle se trouve. Chez un métaphysicien, elle est ordinairement toute systématique; chez un géomètre, elle est souvent toute de calcul.*” The precipitancy of mathematicians in applying their science to all subjects occasioned this remark. D'Alembert was the ablest mathematician of his time; but he was also more; he was a philosopher and a metaphysician: he never suffered his common sense to be led astray by a fondness for his favourite study: he never mistook the mere result of an algebraical calculation for a physical truth; and he considered analysis as an instrument and key by which the secrets of nature might be opened, not as a casket in which all knowledge was mysteriously enveloped. In the doctrine of chances, he thought that mathematicians had been too precipitate; that is, that they had begun to calculate before they had sufficiently examined their principles. These principles are to be obtained from experience and observation: the mathematician, therefore, must frame an hypothesis as nearly coincident as is possible with the judgments formed from experience; and he may obtain a test to try the truth of his hypothesis, by comparing the consequences deduced from that hypothesis, in particular cases, with the result of experience. Now, according to the doctrine of chances established by De Moivre, Bernouilli, &c. there is a fraction which expresses the probability of throwing, with a die of six faces, an ace a thousand times successively; or, in other words, the fact of an ace being thrown a thousand times successively is mathematically possible. We have no hesitation, however, in saying that such a fact is *physically impossible*; or that all our notions derived from observation are against such an uniformity in the order of events; and if the hypothesis be defective in this instance, how can we be certain that it is accurate in others; or that it truly assigns the probability of throwing an ace 100 times, or 50 times, or 10 times, &c. successively? Again, in the doctrine of chances, the value of expectation is measured by the product of the sum and the probability of gaining it: hence, suppose that *A* and *B* play on these conditions, viz. that *A* is to give *B* a crown, if *B* with a counter marked on its two faces *a*, *b*, throws *a* the first time; two crowns, if he throws it the second; four crowns if he throws it the third time, and so on:—now it is required to assign what is the value of *B*'s expectation, or what sum he ought previously

previously to give to *A*, in order that each may be on equal terms. According to the rules in the doctrine of chances, the sum is

$$\frac{1}{2} \times 1 + \frac{1}{4} \times 2 + \frac{1}{8} \times 4, \&c.$$

$= \frac{1}{2} \times (1 + 1 + 1 + 1) \&c. = \infty$, or an infinite sum; which is manifestly absurd, since it is physically certain that *B* must lose,

Again; suppose that *A*, being worth 1000l., has an opportunity offered of gaining 1000l. more, if an event should occur, of which the probability is $\frac{1}{2}$: according to the rules in the doctrine of chances, the value of the chance of this 1000l. is $\frac{1000}{2}$ or 500l.: yet we know that no reasonable man in *A*'s condition would give 400l. nor 300l. for it.

Again; in a lottery worth 400,000l. with 100,000 tickets, the value of each ticket or chance is only 4l.; yet a person does not hesitate to give for it 8 or 9l.; and having bought a ticket, perhaps, he would not sell it for 10l. or 20l. or 50l.

The above considerations are sufficient to shew that the doctrine of chances rests not on such sure ground as it is generally thought to do, and that its results are to be admitted as true only in a certain sense. Much error has crept in from the indeterminate meaning of words: the term *expectation* ought especially to be restricted: the product of the sum to be obtained, and the chance of obtaining it, are not to be held as the measure of an individual's real expectation, nor of the motive which determines his conduct. It is ridiculous to make a person feel, fear, and hope by algebra. If we wish for precision, we must understand by *expectation* the sum which the contingency expressed by this term will raise in lottery offices, or insurance offices; in short, what will be given for it by those persons who trade in contingencies, and derive from *risks* a certain profit. In this sense, the rules of the doctrine of chances properly assign the value of expectation; and in the same manner, from examining the tables of mortality, it is said that an individual *A*, 36 years old, will live so many years: this may be quite false, as applied to that individual from particular circumstances belonging to his diet, his residence, constitution, &c.: but an insurer is justified in allowing him the number of years which the tables afford for the duration of his life, because he considers him as belonging to a class in which there is a compensation of inequalities which it is impossible separately to appreciate.

These prefatory remarks are easily to be applied to the paper before us; the author of which appears to have read much concerning the subject: but he is frequently inaccurate from using

words of a vague signification; and he corrects Halley and Waring where he is not justified in so doing.

To consider his reasonings more particularly, he says, p. 81, that 'quantities which are finite must have some finite determinate ratio to each other.'—is it hence to be understood that a finite determinate ratio is that which can be expressed accurately by numbers? if so, the assertion is not generally true; for it depends on actual computation whether the ratio shall be determinate or not; and computation frequently shews that there are quantities which are not to each other as number to number.

In p. 84, the author observes: 'From what has been said, it follows that the probability that a witness tells truth, in a given instance, will be expressed by a fraction whose numerator is the number of chances for his telling truth, and the denominator the sum of the number of chances for his telling truth, and for his telling falsehood together.' Here we tread on uncertain ground: 'tells truth' is a vague expression; our judgment whether the witness may be believed or not depends, perhaps, more on the nature of the fact related than on his previous character.

Shortly afterward, Dr. Young says:

'These principles likewise, as Dr. Waring observes, may be applied to the investigation of the probability of the truth of the decision of any number of voters, and many other cases; the probability of each voter voting truly being supposed given. But, as he also observes, it is impossible to determine the knowledge, integrity, and various influences which actuate each person, and consequently to determine the probability of their voting truly.'

Here Dr. Waring is in our opinion quite right. If precise *measures* of the principles on which calculation is to be founded are obtained, then we must determine whether or not the problem can be solved, by the actual state and perfection of analytical science: but the great difficulty is in obtaining just values of the principles.

We have already remarked on what is quoted in p. 87. from De Moivre, concerning Expectation. For personal individual expectation, there is no measure in all algebra.

'But the expectation, (says Dr. Y.) in the same circumstances of an event, will be different according to the constitution of the expectant: for, according to his antecedent experience, knowledge, prejudices, and passions, the arguments for or against the probability of the event will appear more or less numerous, more or less cogent; so that in given circumstances of an expected event, or of a proposed argument, the apparent probability will very much depend on the constitution of the individual, which therefore must be considered as a principal element in the computation.'

This

This reasoning appears to us to militate against the author's previous and subsequent arguments: but it is sufficient to convince us that, in such cases, we can judge most truly without the aid of analytic knowledge.

'If the chances for the truth and falsehood of the report of each of any concurrent witnesses be equal, no number whatever of such witnesses can render an event probable by their testimony. Because the number of chances of their coincidence in falsehood increases in the same proportion with the number of chances for their telling truth. Let their number $= n$, since the probability that each witness tells truth is $= \frac{1}{2}$, the measure of the probability of the concurrent witnesses will be $= \frac{n}{2^n} = \frac{1}{2}$.'

Let us try this reasoning by a very simple test:—twenty witnesses, of characters half truth and half falsehood, but unconnected with each other, agree in telling a person that, of two prizefighters *A* and *B*, *A* has been the conqueror: then, if this person does not believe more firmly that *A* has really beaten, than he would if only one of these witnesses had related the fact, he deserves pity for the deplorable duration, in which the spells of algebra detain him.

As we think that Dr. Young's method of estimating the grounds for the belief of a fact are erroneous, so we are of opinion also that his criticism on Halley's and Waring's methods is fallacious. He appears to be confused in his conception of 'probability in support of a fact.' Waring and Halley mean, by this expression, those arguments which afford to an individual a ground of rational belief that a certain fact has happened as related. Let us extract a passage in which the author says that Waring is erroneous:

'Here I cannot avoid observing, that Dr. Waring's method of determining the resulting probability, where different arguments are contradictory, is erroneous. Let *P*, says he, be $=$ the probability resulting from the arguments in support of the fact, and *Q* $=$ the probability resulting from all the arguments against the fact; then the probability of all the arguments for the fact will be $P - Q$, if *P* be greater than *Q*; or against it $= Q - P$, if *Q* be greater than *P*. See Principles of Human Knowledge, § 10. Now, according to these principles, if two witnesses of equal veracity should contradict each other, the difference between the probabilities for and against the fact would be $= 0$, that is, the fact would be impossible; which evidently cannot be a true inference.'

Here it is clear, as we have said, that Dr. Young mistakes the true meaning of *probability*.—If witnesses of equal veracity contradict each other, then it follows not that the fact has not happened, but that we have no ground for belief respecting it, and our assent is only suspended. The witness *A*

says that, of the two prizefighters, *M* and *N*, *M* is the conqueror; witness *B* affirms that *N* is the conqueror; then the probability that *M* has beaten is equal to the probability that *N* has beaten, and *vice versa*. We have no grounds for forming a rational belief.

We repeat that this subject appears to us very liable to uncertainty, from ambiguous terms and from false assumptions. In mathematics, it is said, we have certainty and truth; and men have been precipitate in translating a question into algebraic language, not considering that mathematical truth means nothing more than the coincidence of a conclusion with the premises, shewn by intermediate propositions; and that therefore a mathematical truth cannot be assumed as a physical truth, except the premises or principles are warranted by experience and observation. We have already said in what cases the doctrine of chances is useful;—in calculating the values of annuities, reversions, &c. If applied to games of chance, the principles seem to want revision; because what is *metaphysically* and *mathematically* possible is not of necessity *physically* possible. If applied to testimony, the doctrine of chances does not lead to much practical usefulness, on account of the extreme difficulty of appreciating principles which are so various, numerous, and mutable.—When there is so much to exercise ingenuity, and to excite rational curiosity, why should we grasp at things above our reach; or capriciously deviate from the plain road of science, in a fanciful search for *difficiles nuga*?

On the Number of the Primitive Colorific Rays in Solar Light. By the Rev. Matthew Young, D. D. &c.—In this memoir, Dr. Young considers a question which has been frequently agitated; viz. Are there three primitive colours, or seven primitive colours? He inclines to the opinion that there are only three. The following extract contains, perhaps, the most satisfactory part of his argument to shew the reasonableness of his opinion:

‘Moreover, if these three colours, red, yellow, and blue, be the primitive colours, they cannot themselves be generated; and accordingly we find that yellow cannot be generated by the mixture of the adjacent prismatic colours, orange and green; and the reason of this is evident, because orange is compounded of red and yellow; and green is compounded of yellow and blue; but red and blue compose purple; which added to the yellow will generate a new compound colour, viz. a sickly green, differing manifestly from yellow, the colour which ought to result according to the analogy of the other primitive colours, in which the extremes, by their mixture, generate that which is intermediate. In the same manner, blue cannot be generated by the mixture of green and indigo, because green is composed of yellow and

and blue, and indigo of blue and violet; therefore the resulting colour is composed of blue, yellow, and violet; but yellow and violet do not compose blue, therefore neither will blue, yellow and violet compose a blue colour. Now if orange and green be primitive colours, in the same manner as red, yellow, and blue, we can assign no reason why blue should not be generated by the mixture of the adjacent colours, as well as green and orange. But it is a received principle, that an hypothesis should solve all the phenomena; of the two hypotheses therefore, namely, that there are seven primitive colours, differently refrangible; or that there are but three, some of which, of each species, are equally refrangible; the latter alone solves all the phenomena of the solar spectrum, and therefore is to be preferred.²

Observations on the Theory of Electric Attraction and Repulsion. By the Rev. George Miller, D. D. M. R. I. A.—The principle here proposed to solve the phenomena of electric attraction and repulsion is *saturation*. A new term, however, does not remove difficulties; and this new term of *saturation* appears to us to designate only what we formerly knew under different expressions.

A general Demonstration of the Property of the Circle discovered by Mr. Cotes, deduced from the Circle only. By the Rev. J. Brinkley.—In 1716, Cotes, according to a letter to one of his friends, discovered that property of the circle which is still called by his name. In the same year, this great man was prematurely snatched away; and it was only after much investigation that the editor of his works (Dr. Robert Smith) was able to find the *Theorema pulcherrimum** of his deceased friend. The theorem was without demonstration: but this deficiency was supplied by Bernouilli, by De Moivre, and by Maclaurin: to whose demonstrations the author of the present paper objects, since they are derived from properties belonging to the equilateral hyperbola, or are obtained by the aid of imaginary expressions. The method of Mr. Brinkley is briefly as follows:

Let the circumference of a circle be divided into n equal parts $OO^1, O^1, O^{11}, \&c.$ and let P be a point in the radius, C the center, $PC = x$, & $a, a^1, a^{11}, \&c.$ cos. of $o, OO^1, O^1, O^{11}, \&c.$ then $PO^2 \times PO^{12}, \&c. = ((x^2 + 1) - 2ax)(x^2 + 1 - 2a^1x), \&c.$

$$= (x^2 + 1)^n - a^1 \left\{ 2x \cdot (x^2 + 1)^{n-1} + aa^{11} \right\} 2^2 x^n \cdot (x^2 + 1)^{n-2} \&c.$$

* *Qua quancum primo intuitu, Sibyllæ foliis obscuriora videbantur, quod nullo ordine nec verbo erant explicata: multiplices tamen conjectandi occasiones præbendo, spem fortiter conceptam non sefellierunt. Quippe cum ea sæpius evolverem aliquamque ex alia re lucrarer, revocari tandem ab interitu Theorema pulcherrimum.*

now, cosine of n times an Arc, whose cosine is c ,

is $2^{n-1}c^n - n \cdot 2^{n-3} \cdot c^{n-2} +$, &c. put this quantity $= 1$; but 1 is cosine of 0 , p , $2p$, 1 , &c. (p = periphery of circle); hence a , a' , &c. are the different values of c , or are cosines $\frac{0}{n}$, $\frac{p}{n}$, $\frac{2p}{n}$, &c.; or, a , a' , &c. are roots of $c^n - nc^{n-2} +$, &c., $\frac{2^2}{2^2}$

hence $a + a' +$, &c. $= 0$

$$aa' + aa'' +$$
, &c. $= \frac{-n}{2^2}$, &c. &c.

Substitute these values in the form representing the product of PO^2 , PO'^2 , &c.; and collecting the terms affected by the same powers of x , the product will appear to be represented by

$$x^{2n} - 2x^n + 1$$

the coefficients of the other terms vanishing; which the author shews will happen, by the aid of a lemma.

On the hypothesis that the cosine of n times an arc, whose cosine is c , is represented by $2^{n-1}c^n - 2^{n-3} \cdot n c^{n-2}$, &c.

this proof is perspicuous and direct. In his former paper, Mr. Brinkley demonstrates that the cosine (n arc) is duly represented by the above formula: but we have already mentioned that this demonstration is not to be pronounced *strict*, since the law of the coefficients is first *conjectured*; which circumstance, we think, makes the demonstration an inductive one. Granting, however, the formula for the cosine (n arc), the present demonstration of Cotes's property is very ingenious, and is highly creditable to its learned author.

Additional Observations on the Proportion of Real Acid in the three Antient known Mineral Acids, and on the Ingredients in various Neutral Salts and other Compounds. By Richard Kirwan, Esq. LL. D. &c.—Those who understand the nature of the science of chemistry know that, if the real quantities of the constituent substances of neutral and other compounds can be found, considerable powers will be attained: for such knowledge will enable us to calculate, in many instances, the force of chemical attractions; and hence also various chemical processes in the arts are carried on with certainty, exactness, and œconomy. In this fundamental part of the science, Mr. Kirwan has been a zealous, and indeed a successful, labourer, for more than twenty years; and the observations now before us are the latest fruits of his well-directed industry. The occasion of the present paper is explained in the following lines by the respectable author:

• The

‘ The fundamental experiments on which the proportion of real acid in the three mineral acids antiently known, and also the proportion of ingredients in many neutral salts, were determined, I have already set forth in a paper to be found in the IVth Vol. of the Transactions of this Academy *. In that paper I have inserted tables of the quantity of standard acid existing in 100 parts of each of the acid liquors, of given specific gravities, and also in each of the neutral salts therein mentioned; the mode of expressing the quantity of acid I had then adopted I since discovered to be very inconvenient, as in some of these neutral salts an acid still stronger than the assumed standard was found to exist. But I have there also noticed that the strongest vitriolic acid now known, existed in *vitriolated tartarin*, the strongest nitrous acid in *nitrated soda*, and the strongest muriatic acid in *muriated tartarin*; acids of such strength I have therefore denominated *real*, as either containing no water, or containing only as much as is necessary to their essential composition, as far as this is at present known. The method of transforming the expression *standard* into that of *real*, I have there also given, and by it have formed the table I here present; this latter expression I therefore now employ in every case instead of that of *standard*, together with the substitution of a more commodious expression of the strength of acids: The design of this paper is also to exhibit an illustration or amendment of several of the determinations contained in my last, which being for the most part single, required confirmation by shewing their agreement with the experiments of several of the most eminent chymists made since the publication of mine, that is since the year 1791, with a few made nearly at the same time. In my former paper I compared my results with those of Bergman and Wenzel, they being almost the only persons who had made this subject the principal object of their enquiry, and had pursued it to a considerable extent; in each particular instance I have traced the reason of the difference of the results from my own when it was such as to deserve notice, and I shall not here repeat what I have there said; but I cannot avoid again mentioning one general source of error attending the mode of investigation adopted by both and yet noticed by neither, namely, the loss that many neutral salts undergo during evaporation; a loss whose discovery is of considerable importance, not only to the present inquiry, but also to the conduct of several manufactures, particularly to that of saltpetre, and hence noticed by Mr. Lavoisier, 15 An. Chy. 254.’

It is worthy of notice, that Mr. Kirwan here also gives an account of the proportion of *ingredients* in compounds not before noticed, which have been determined by himself and others. His new and first table of the quantity of real vitriolic, nitrous, and muriatic acid of different densities, at the temperature of 60°, cannot be abridged; nor do his observations on this table, and the solution of the problems to find the

* See M. Rev. N. S. vol. xiii. p. 386.

quantity of real acid, and to find the specific gravity in 100 parts of acid liquor, admit of being abstracted. The other problems, viz. to find the quantity of water, the quantity of real acid in mixed acid liquors, the specific gravity of acids in neutral salts, and the quantity of basis in double salts, are equally incapable of being abridged: but it will be proper to give the titles of the other tables, although we can neither exhibit them nor comment on them. Tab. II. is intitled, *Quantity of Real Acid taken up by mere Alkalies and Earths.* III. *Of the Quantity Alkalies and Earths taken up by 100 Parts of Real Vitriolic, Nitrous, Muriatic, and Carbonic Acids saturated.* IV. *Quantity of Neutral Salts afforded by 100 Parts of the above-mentioned Acids, when saturated with the above named bases.* V. *Quantity of Neutral Salts afforded by 100 Parts of different Bases, when combined with the Vitriolic, Nitrous, Marine, and Carbonic Acids.* VI. *Of the Proportion of Ingredients in certain Saline Compounds.*

On each of these tables, an important collection of experiments has been made for the scientific and the practical chemist; which are detailed in this long Memoir, occupying 140 pages.

Essay on Human Liberty. By Richard Kirwan, Esq. &c. — This short paper supports the opinion of liberty against Priestley and other necessarians. When words are properly defined, the question is not a very difficult one.

Synoptical View of the State of the Weather at Dublin in the Year 1798. By Richard Kirwan, Esq. &c.

An Abstract of Observations of the Weather in the Year 1798, made by Henry Edgeworth, Esq. at Edgeworthstown in the County of Longford in Ireland.

These tables shew some differences in the results; arising, no doubt, from the observations having been made at distinct places. By Mr. K.'s table, it appears that *Hail* fell on two days in the month of August, though the mean height of the thermometer during that month was 58, 72 (Mr. Edgeworth says 61); and that there were 28 days of rain. (Mr. E. says only 9).

A Method of expressing, when possible, the Value of one variable Quantity in integral Powers of another and constant Quantities, having given Equations expressing the Relation of these variable Quantities: In which is contained the general Doctrine of Reversion of Series, of approximating to the Roots of Equations, and of the Solution of Fluxional Equations by Series. By the Rev. J. Brinkley. — In the year 1715, Brook Taylor published his direct and inverse method of Increments; in which work is contained a theorem of great use in analytics: viz. Let $y =$ any function of x ; then if x be increased by Δx , y becomes

$y + \left(\frac{y}{x}\right) x + \frac{1}{1.2} x^2 \left(\frac{y}{x^2}\right) +$, &c. or if x be increased by h ,

y becomes $y + \left(\frac{y}{x}\right) h + \frac{1}{1.2} h^2 \left(\frac{y}{x^2}\right) +$, &c. On this for-

mula, the theory of series principally depends. The demonstration of this theorem was given by its learned author by means of Newton's theorem; since, according to the law of this latter, he found the successive values of the variable quantities to increase by continual addition. More accurate demonstrations have been exhibited, since Taylor's time; by Euler, in his *Institutiones Calculi Differentialis*, (page 333, 334, &c.), and by La Grange in the Berlin Memoir, 1772. The latter is most accurate: that of the former differs very little from Mr. Brinkley's mode; and we were therefore surprized to find, in a note to the present paper, a complaint against the inaccuracy of the methods by which Taylor's theorem had been demonstrated. From that theorem, it is clear that a method may be deduced, of expressing the value of one quantity in a series ascending by the powers of the other; thus, if $y = fx$, and $y, y', y'',$ &c. be the values of $y, \frac{y}{x}, \frac{y}{x^2},$ &c. when $x = 0$, it may

be proved that $y = fx = y + x. y' + \frac{x^2}{1.2} y''$, &c. but the au-

thor of the present memoir observes, that this developement of fx in cases at all complex is attended with the greatest difficulty, or rather trouble, which must be undergone in order to derive the successive values, $y'', y''',$ &c. A principal object of his memoir, therefore, is to alleviate this trouble, by exhibiting theorems for taking fluxions of different orders *per saltum*; that is, without finding the fluxions of the inferior orders.

Mr. Brinkley shews the utility of his method, by applying it to several examples. He deduces, by its means, the law for the coefficients of a multinomial raised to any power,—the series ascending by the powers of the arc for the logarithmic secant,—the series ascending by the powers of the excentricity for the excentric anomaly, the mean anomaly being given,—and the series for the sine of n times an arc in terms of the sine of the simple arc. This latter example is, as its author justly observes, a conspicuous instance of the advantage of his method; since, by an easy process, the series* $ax - \frac{n^2 - 1}{2.3} ax^3$

* The author truly remarks that this series has been very imperfectly deduced by several authors; Euler, *Analysis Infinitorum*, p. 199,

+, &c. invented by Newton, is deduced, and its general law established.

We have not the least hesitation in acknowledging the excellence of Professor Brinkley's method, considered relatively to compendium and commodiousness: but the demonstration of his principal proposition is not what we desire a mathematical demonstration to be: as it now stands, we think that it is somewhat deficient in perspicuity and accuracy.

Our readers will remark that, in this article, the mathematical papers of Mr. B. have been particularly examined: the plain inference is that we consider them as deserving notice; and if we have made several critical remarks, let it be remembered that works of ability alone are proper objects of serious criticism. In the preceding volumes of the Dublin Transactions, we find no communications from this author; and there may now, therefore, be no impropriety in congratulating the Academy on the acquisition of so valuable a member as Mr. B. is likely to become.

Account of the Weather at Londonderry in 1799. By William Patterson, M. D. &c.

Synoptical View of the State of the Weather at Dublin in 1799. By Richard Kirwan, Esq. &c.

The class of SCIENCE is, as usual, succeeded by that of
POLITE LITERATURE,
in which we here find only one paper, viz. *Some Observations upon the Greek Accents.* By Arthur Browne, Esq. Senior Fellow of Trinity College, Dublin.

The Greek accents have, since the revival of letters, been a subject of as warm controversy as any in which polemics have engaged. The principal argument urged in their favour is, that they serve to distinguish certain words composed of the same alphabetic elements, but differing in meaning; which meaning is determined by such or such an accent being placed on this or that syllable: but perhaps this discrimination may be readily made from the context, without the aid of accents; as in Latin we discriminate *malum*, an *apple*, from *malum*, an *evil*; or *dico*, I *say*, from *dico*, I *dedicate*; or, as in English, the noun *subject* from the verb *subject*; or *let*, to *permit*, from *let*, to *hinder*. Similar instances might be brought from other languages, both European and Asiatic.

A Grecian ship having been driven into the Bay of Dingle, and her crew being detained a considerable time in Ireland, Mr.

199, deduces (if deduction it can be called) from the scale of relation subsisting between $\sin. 3 \text{ arc}$, $\sin. 5 \text{ arc}$, &c.

Browne

Browne took the opportunity of frequently conversing with the master of the vessel and the other seamen, concerning the *Greek accents*; and the result was, 'that the practice of the *modern Greeks* is, to make *accent* the *cause of quantity*; and to *govern* and *control quantity*.—They make syllables long, on which the accent falls, and allow the acute accent to change the real quantity.'—This appears to us so exceedingly strange, that we were at first inclined to imagine that Mr. B. must have, in some respect, misunderstood his Greek mariners: but, as he adduces several examples of their manner of reading Greek, we cannot well doubt that his representation is accurate. They pronounced *ἄνθρωπος* *anthrōpos*, *ἀργυροῦς* *argutōrox*, *καλῆμενα* *kulēmēra*, and *ἐπιτρεῖς* *epitēdēs*. This is certainly putting *quantity* under the government of *accent*, with a vengeance: but will the authority of a modern Greek seaman be sufficient to establish this control? As well might we seek the genuine pronunciation of the Latin from an Italian mariner of Leghorn, as that of the antient Greek from a mariner of Patrass.—Yet it was the pronunciation of these Greek mariners, that led Mr. B. to the conclusion, 'that the peculiarity of the English, by which we always prolong the sound of that syllable on which the *acute* accent falls, is true, and has been true of every nation upon earth!' Mr. B. seems not to be aware that the marking of our *emphatic* or long syllables with an acute accent was merely accidental and arbitrary, and borrowed from the modern Romans; who chose, in their liturgical books, to direct the ignorant clergy to the true quantity of Latin words, by placing an acute accent on some one long syllable, which served to regulate the rest: but it is evident that any other arbitrary mark (a *grave* accent for example, or a *circumflex*,) would have equally answered the same purpose, and would in reality have been more proper than the acute accent of the Greeks. Our English lexicographers, finding Latin words thus accented, satisfied themselves with borrowing the idea, and placed the same acute accent on the predominant syllables of our words. The French judged better: they put the *acute* accent where it should be, on the *short* and *sharp* syllables of their words; and the *grave* or *circumflex* on longer syllables. This, in our opinion, was precisely the case with the Greek system of accentuation: for Dr. Horsley has very justly observed that it is a grievous and vulgar mistake, to imagine that they always placed the *acute* on a long syllable; on the contrary, we believe that it was never placed on an absolutely long syllable, but always on a comparatively short one: for an *acute* or *sharp* sound is, by nature, either *absolutely* or *comparatively* short. We say *absolutely* or *comparatively*; for

Dionysius Halicarn. most justly remarks that there are *short, shorter, and shortest* syllables; as well as *long, longer, and longest* syllables; and, indeed, it is impossible to give to three, or even two, short syllables together, the same exact quantity in pronouncing them. For instance; whether we read *armâ virûmqûe cânô*, as the line is commonly read; or *armâ virûmqûe cânô*, as it ought to be read; still one of the short syllables, in both dactyls, will be somewhat longer than the other. We are of opinion that every line, whether Greek or Latin, read according to the quantity, and *uncontrolled* by any accent, is more harmonious to the tuneful ear, than when pronounced in any other manner. Even the line of Horace quoted by Mr. Browne,

“ O fortunati mercatores, gravis annis,”

is greatly improved, and not rendered at all unharmonious, by reading

“ O fortunâti mērcatōrēs, grāvis ānnis :”

but if it be read as it usually is, it is a heavy prosaic line indeed. We shall endeavour to make this remark clearer, from three lines of the same author, in another measure :

“ Mæcenas, atavis edite regibus :

O et præsidium et dulce decus meum!

Sunt quos curriculo pulverem Olympicum—”

The first and third of these lines are read rightly, in our schools, because they can hardly be read otherwise: but the second is murdered by reading *dulce dēcus mēum*. The mispronunciation, indeed, is not observed, because the words are only dissyllables: but try it in the first line, and read *rēgibus*; or in the third *ōlympicum*; and the effect will be sufficiently apparent.

Mr. B. thinks that, although the French accent differently from other nations, yet their versification may serve to illustrate his system. ‘The reason (says he) why heroic French measure seems so intolerable to us, is that we attempt to read it by quantity. It then comes out exactly like our twelve syllable verse,—and the famous line of Corneille;

“ Rome, l’objet unique de mon ressentiment :”

dances on the ear exactly like

“ Ye belles and ye flirts, and ye pert little things.”

How the French line dances on Mr. B.’s ear, we cannot say: but on ours it dances very differently: not because we read it *not by quantity*, but because we *do* read it by the strictest rules of quantity.

On the whole, then, whatever opinion may be adopted concerning the utility or inutility of the Greek accents, we must enter

enter our serious protest against their being allowed to *control quantity*: the proper observance of which is the only sure criterion, with us, of reading and pronouncing the Greek and Latin languages.

At the end of this paper, we have a *fac simile* of a modern Greek letter, written by one of the sailors of the above mentioned ship, with an English version,—to which we refer the curious reader.

ART. II. *The History of Helvetia*, containing the Rise and Progress of the federative Republics, to the Middle of the Fifteenth Century. By Francis Hare Naylor, Esq. 8vo. 2 Vols. 16s. Boards. Mawman. 1801.

As the public have very recently been furnished with an elaborate and satisfactory *History of the Helvetic Confederacy*, from the pen of Mr. Planta, they probably did not expect that another work of the same nature would so soon have been offered to them. It has happened in this case, however, as no doubt it frequently must happen in human affairs, that similar designs have been entertained by different persons at the same time. The reasons which have induced Mr. Naylor to print his history, notwithstanding the prior appearance of Mr. Planta's volumes, are thus stated in his preface:

'The greater part of this publication was ready for the press, before I was apprized of Mr. Planta's intention of treating the same subject. Nor is this extraordinary, since it was written during my residence in Italy. But no sooner did I see his *HELVETIC CONFEDERACY* advertised, than I laid down my pen, determined to wait for the appearance of that work, before I finally decided upon the destiny of my own. Finding, however, that Mr. Planta's view of things differed materially from mine, and that we frequently considered the same object in an opposite light, I saw no reason to abandon my plan. How far I may have acted with prudence, it remains with the public to determine.'

A comparison seems thus to be unavoidably excited, which perhaps it would have been more fortunate for Mr. N. if he could have avoided. In the tribute which we paid to Mr. Planta's work*, our judgment has been ratified by that of the public; who have agreed with us in considering it as a valuable acquisition to our literature; not to be passed over by any political or philosophical reader of history. We are sorry that we cannot place the volumes before us in the same class, and assign to them equal praise: but they will be acceptable

* See Rev. vol. xxxii. p. 161, and 405.

to general readers, to whom they will afford amusement and instruction, and who may peruse them without imbibing errors, or being tainted by any pernicious bias. Sound principles of practical and moderate liberty warm the author's breast, and animate his page; he steers clear of those extremes in politics and religion, which disgrace the present age; and he appears to be equally the advocate of religion, the friend of sound philosophy, and the enemy of bigotry and sophistry. If we are constrained to state, on the other hand, that his matter has not been worked up into method, nor his composition into pure style, and that his volumes are sanctioned by no references to the sources whence he has drawn his information, we mention these defects reluctantly; and we must at the same time give it as our opinion that his inferiority on the score of authorship arises less from inability, than from his not having bestowed the requisite labour on his task.

The first part of the work is rather a history of Europe in general, than of Helvetia in particular, and might with advantage have been very much curtailed.—Of the horrors prevalent during the 7th and 18th centuries, the reader may judge from the extract here subjoined:

‘ Perhaps no stronger argument can be adduced of the inefficacy of all civil institutions for the preservation of peace, in a rude and barbarous age, than the various regulations and provisions which so frequently occur in the Salic and Ripuarian codes, for the termination of private quarrels. In more polished nations, the law announces itself in an authoritative tone. Among the early Germans, it rather persuaded, and advised, than commanded. Hence, in cases of homicide, it was more the object of the judge to pacify the relations of the deceased, than to punish the criminal, to prevent the fatal consequences of family feuds, than to revenge the injury which had been committed against society. The following anecdote is related by Gregory of Tours. A young man of Tournai, indignant at the ill-treatment which his sister had received, fell upon her husband, with the assistance of a select party of friends, and murdered him with many of his attendants. The affray however, was of so desperate a nature, that the youth, with several of his companions, were [was] killed. The spirit of revenge might now be supposed to have been amply satiated. This was, however, very far from being the case. The honor of the deceased required a still further effusion of blood. The relations and dependants armed on both sides. Not a night passed, but the citizens of Tournai were alarmed with the shrieks of murder, and the clash of swords. Not a morning dawned, but they were shocked with the horrid spectacle of some friend, or relative, borne lifeless to the grave. Fredegunde, who to the disgrace of humanity, and of the female character, at that time reigned over a part of France, left nothing unattempted to appease their resentment. But finding every effort ineffectual, she embraced a reso-

lution, which, while it displays the ferocity of her own disposition, evinces the weakness of the civil arm. Having invited the principal adherents of either faction to a splendid entertainment, under the specious pretence of promoting a reconciliation, she plied them with wine, till they were incapable of all resistance, and then caused them to be assassinated in cold blood.'

The following is the author's account of the prerogatives belonging to the head of the empire :

' In the course of the succeeding pages, we shall have occasion to refer so frequently to the imperial authority, that it may not be improper to examine into it's nature and extent. Such an enquiry will enable us to form a juster opinion of the conduct of the House of Austria, in their memorable struggle with the Swiss.—Under the Saxon line, there is little doubt that the head of the empire was considered not only as the legislator, but as the chief magistrate of Germany. Wherever he came, all authorities ceased, or at least acted in subordinate capacities. His tribunal was paramount to every other, and comprehended persons of all ranks and descriptions. Examples are not wanting to shew, that even counts and dukes have been degraded for malversation. The ancient law books are filled with the decisions of the emperors in disputes between the different princes of Germany. Yet still the emperor does not appear to have acted entirely with an independant, and uncontrollable sway, but usually to have recurred to the advice of persons of the same condition, and generally of the same province with the delinquent. This was done in conformity to an ancient edict, which enacts, that *every one shall be tried by his peers, or equals*. But as it was impossible for the head of the empire to preside in different tribunals at the same time, or to transport himself to the extremities of Germany, with the promptitude which the decision of processes so frequently required, the office of *Count Palatine* was instituted. The business of this magistrate was to superintend the administration of justice in the various provinces. To him an appeal lay from the ordinary tribunals, in causes which were not of sufficient importance to be carried before the emperor in person. By him too was the *imperial ban* published, and by him were the finances administered. These officers were first established in Bavaria, Saxony, Suabia, and upon the Rhine.'

The spirit which pervades Mr. Naylor's accounts of the wonderful events of the Helvetic Revolution is to be highly applauded; and the views which accompany them appear to us extremely just. As, however, in our Review of Mr. Planta's performance, we made ample extracts relating to these points, we must now refer those readers to both the original works, who wish for more minute information.

We fully concur with the present author in the subsequent observations, which we find near the commencement of his second volume :

‘ Few propositions seem to us more capable of demonstration, than *that man is by nature inclined to submission, and that it requires a more than common degree of misconduct, on the part of his governors, to make him resist.* Whether this proceeds from habitual indolence—from the dread and uncertainty of a revolutionary change—or from a kind of innate reverence for all those dazzling insignia with which supreme power is usually accompanied—is a problem which we shall leave to the philosopher to resolve. The observation comes within the province of history, and is authenticated by her documents in every age.’

Mr. N.’s reflections on the Helvetic union are highly creditable to him, and will reward the perusal of the best informed reader. We extract a passage as a specimen :

‘ The cantons of Uri, Schweiz, and Unterwalden, may very justly be regarded as the point where all the rays of the confederacy united, as in one common centre. The other five cantons were more immediately connected with these ; and through these, with each other. The object both of Berne and Zurich was evidently *aggrandisement*—that of the forest cantons *security*. One principle however was common to them all: they all equally struggled for the preservation of their liberties. Thus was the house of Austria their natural and hereditary foe ; the point to which their attention was unremittingly directed ; for without the support of that powerful family, the whole swarm of petty tyrants which espoused the cause of aristocracy, were objects rather of scorn than of terror. An alliance founded upon such a coincidence of interests, was subject to none of those little jealousies, which are usually the bane of all political confederacies. Besides, the Helvetic union was rather the effect of chance, and of a fortunate combination of fortuitous circumstances, than the result of political speculation, or of deep laid design.’

The romantic character of Rudolph of Werdenberg induces us to copy this author’s account of him :

‘ Werdenberg was now become the darling of his new associates ; they sought a recompence for his services ; and since every thing appeared within the compass of their valor, they formed the resolution of reinstating him in his hereditary estates. During their march, they met with little opposition : many barons opened their castles, and welcomed them with simulated joy ; while those who made any resistance saw their fortresses taken and destroyed.

‘ Upon their approach to Werdenberg, they were met by a troop of peasants, who hailed the renowned descendant of their former lords, with shouts of triumph. Delighted with the expressions of gratitude, which flowed from the artless zeal of these simple people, and which bore more honourable testimony to the virtues of his ancestors, than all the studied epitaphs which flattery ever dictated, Rudolph thanked them for their attachment and fidelity, in the honest language of a friend. But, at the same time, signified a wish of resigning all his hereditary honors to his younger brother, and of passing the remainder of his days among that gallant people,

with

with whose happiness he had associated his own. For having now accustomed himself to the pleasures and habits of a pastoral life, scenes of grandeur and magnificence had lost their charms.

Soon, however, he discovered, that a series of uninterrupted success had vitiated the minds of the Appenzellers, and awakened them to views of interest and ambition; he grew disgusted at the change, and angry with mankind, whose brightest qualities are so transient and fortuitous. Leaving the partners of his glory, he retired to a cottage, situated among his favourite mountains, and united to one of the heroines of Stoss, he passed the remnant of his days in the enjoyment of conscious integrity, and spotless fame, respected and beloved by all the world.

Recollecting how learned and respectable an assembly was that of the fathers of the council of Constance, we feel no small surprize when we attend to the style of their proceedings towards the celebrated martyr of reform, John Huss :

‘ Huss no sooner found himself abandoned by the emperor, than he insisted upon a public trial. The request was granted, though not without difficulty. But from the very first sitting, it was evident what kind of treatment he had to expect; for the proceedings of the court were conducted with such indecent violence, and tumultuous confusion, that his voice could scarcely be heard. At a subsequent meeting, he was allowed to answer to a few only of the numerous articles, which were exhibited against him. Among the rest, he was accused of asserting, *that a vicious pope was no pope with regard to spiritual power, and could not, therefore, exercise any legal authority over the faithful.* The charge being read, he modestly requested the assembly to point out the heretical tendency of such an opinion, before he was required to recant it. This was no easy task. The judges, therefore, in order to avoid any difficulties of a similar nature, which the ingenuity of the criminal might raise, came at once to the profligate decision, *that it was unworthy [of] men, who were endued with the gift of the holy spirit, to make use of any arguments to confute a heretic. It was their duty alone to punish him.* Upon this, all further conference was broken off. Recantation, or death, were the only alternatives offered. The latter, indeed, was of a nature to revolt every mind, that was sensible to the feelings of humanity, or conversant with the laws of honor. But when men are blinded by fanatic zeal, they are insensible to every sentiment but revenge.’

We are persuaded that our readers will share in the pleasure which we felt, in perusing Mr. Naylor's impassioned account of the circumstances which attended the origin of Rhætian liberty :

‘ That every system of equality, which is founded upon any other principle than the *equality of laws*, is both chimerical, and impracticable, requires little ingenuity to demonstrate. But it is equally evident to a reflecting mind, that the benign views of the Creator could

could have never called millions of beings into existence, for no other purpose, than for the sport or pleasure of one. Opinions, like these, require but little rhetoric to recommend them. Yet the name of the man, who first communicated them to the Rhætians, is buried in oblivion. The author of the GRISONS LEAGUE is unknown to posterity.

‘ Within the jurisdiction of the abbot of Disentis, is situated the romantic valley of Truns. The whole country from Ilanz, to the source of the Rhine, presents a series of the most picturesque objects, that the human eye ever contemplated. Here the loftiest summits of the Alps pour down their stupendous torrents, in a thousand channels, and give birth to mighty rivers. From scenes like these, where nature towers under her most gigantic form, the transition is instantaneous to harmony, and peace. The fertile meadow presents the pleasing picture of cultivation, and furnishes subsistence to the rude native of this sequestered spot.

‘ It was in a grove, near Truns, that the most reputable inhabitants of the adjacent hamlets met, in the dead of night, to confer upon some general plan for their mutual preservation. They were sensible of their condition, and keenly felt the injuries to which they had been exposed. But no mean ambition had kindled the flame of discord; no base nor interested projects directed their opposition. They sought not for worldly dignities, nor for the pre-eminence of rank: they were strangers to every selfish motive, and scorned alike to traffic in the ruin, or in the prosperity of their country. Even their very names are lost to posterity. And while the pompous mausoleum points out, to the execration of posterity, the faithless minister, or the perjured tyrant, the founders of Rhætian liberty moulder unnoticed in their native dust. It was the innate sentiment of freedom—the wish of establishing some system of equality in the administration of justice—but above all, that noble and manly feeling, which prompts us to promote the comfort and happiness of all our species, but more particularly of those who are connected with us by the ties of consanguinity, or the bonds of friendship—which inspired the resolution necessary for the accomplishment of so arduous an enterprize.

‘ Upon examining into their resources, they found that they had nothing to depend upon except themselves. But the love of liberty supplies it's votaries with every thing which is requisite for obtaining it. Accustomed, from their earliest youth, to the fatigues of a laborious life, their bodies were of the most athletic forms. Braced by the bleak Alpine blast, their nerves were strangers to every sensation which could indicate fear. Their wants too were few, for they were acquainted with no other pleasures, but those which nature furnished in her simplest state, and which are ever within the reach of those, whose tastes are uncorrupted by the fastidious enjoyments of polished society.

‘ Such were the men, whom the genius of Rhætia had assembled at Truns. An ancient tradition still exists, that they were in general persons dignified by age, and distinguished by their long grey beards. From which circumstance, as well as from their dress, which is said

to have consisted of the grey cloathing so much in use in Rhætia, the league was afterwards distinguished by the appellation of the GRISON LEAGUE *.

The author's picture of Helvetia, at the period at which his history breaks off, must terminate our extracts :

' We leave Helvetia in the enjoyment of happiness, which has seldom been the lot of mortality. Rhætia was at length united with Glaris. The Appenzellers were rewarded, for their generous struggle, by the friendship, and alliance, of the confederates. The jurisdiction of Uri extended to the southern side of the St. Gothard, and filled the pusillanimous minds of the Italian despots with terror and dismay. Schweitz, deservedly venerated as the parent of Helvetic liberty, was equally the dread and admiration of surrounding nations. While Unterwalden was remarkable for its rigid adherence to all those ancient virtues, which animated the founders of the Helvetic league. By the acquisition of independence, both Zug and Glaris had obtained the ultimate object of their wishes, and by their integrity, their courage, and their moderation, they rendered themselves worthy of so great a blessing. An extensive commerce, the child of freedom, had given wealth and prosperity to Lucerne, Berne, and Zurich, which the energy of their councils, and the courage of their troops seemed likely to maintain. Such is the picture that Helvetia presented, at this happy moment, to the astonished world !'

The quotations which we have now made will suffice to shew the style in which the author writes, and the manner in which he thinks. With those who chuse to make the comparison, they will also serve to place in opposition to our extracts from Mr. Planta's work; and will enable them to judge, in some degree, of the different points of view in which, Mr. Naylor says, the events of this history have been considered by himself and that gentleman.

It is hinted, in the preface, that the encouragement of the public may induce the author to continue the use of his historic pen; and that, if he throws it by, 'it will not be from want of materials.' A long residence on the continent, he says, has afforded him an opportunity of following the revolutions both of Switzerland and Italy through all their maze of horrors; and he adds that 'papers of the utmost importance are probably within his reach.'—This is a sort of threat which we hope Mr. Naylor will be prompted to execute.

* * In German *der graue bund*, and in our own language more properly the *Grey league*.'

ART. III. *Lyrical Tales*. By Mrs. Mary Robinson. Crown 8vo, pp. 218. 5s. Boards. Longman and Co. 1800.

IN order to excel in lyric poetry, a happy combination of genius and taste must be formed; since this kind of composition ought not only to display a considerable degree of dignity and elevation, but also those charms and subordinate graces which we admire in the most finished literary productions. Mrs. Robinson, then, may be said to have made a bold attempt; and the critic will not take up this volume with the expectation of finding her completely successful. Her lyre, however, is harmonious, and she has displayed the power of touching the chords with pathos. As her life, though in some periods gay and dazzling, was deeply tinctured with sorrow, her muse is of the sombre cast; and though, being desirous of giving variety to her tales, she sometimes endeavours to be sprightly, her efforts are evidently forced, and she soon relapses into the dark and fearful region of tragical invention. She takes her harp from the willow on which it hung, to attune it to sounds of woe, to harrow up the soul, and to impress on the imagination the melancholy truth that human life is indeed *a vale of tears*. If she described it as she found it, we must not only forgive her, but lament her unfortunate destiny; yet we do not recommend it to our readers to cherish those gloomy representations of our present state, which the wounded mind feels a satisfaction in delineating.

Of the twenty-two tales which compose this volume, those intitled *All Alone—The Lascar—The Widow's Home—The Shepherd's Dog—The Fugitive—The Hermit of Mont Blanc—The Negro Girl—The Deserted Cottage—Poor Marguerite—Edmond's Wedding—The Alien Boy—and Golfre*,—are calculated to touch the soul with pity, and to fill the eye with tears. Some of them are composed in blank verse; a kind of measure not strictly *lyrical*, which is an epithet usually applied to a poem adapted to music. In general, however, Mrs. R. has attended to this circumstance; and it must be allowed that the work is no contemptible monument of her poetical genius. As she is now beyond the reach of human advice*, we shall not minutely examine these tales; but, for the benefit of young writers, we must point out an instance or two in which she has violated the truth of nature.

In the tale of *The Lascar*, she thus makes him describe his situation in Asia;

‘ Oft I the stately camel led
And sung the *short-hour’d* night away;’

* Since the publication of the present volume, we learn that Mrs. Robinson has quitted “this nether world.”

forgetting that, in the East Indies, the days and nights are nearly of an equal length throughout the year.

In *Golfre*, we find this couplet:

' So the pale *snow-drop* faintly glows,
When sheltered by the *damask rose*.'

Mrs. Robinson must have known that the snow drop and the damask rose never blow together; and that the latter never *sheltered* the former. This is therefore a singular inadvertency.

A line in *The Widow's Home* shews the same inattention to Nature:

' Of the *tame* sparrow and the red-breast *bold*:'
it should be,

Of the bold sparrow and the red-breast tame.

As a specimen of the blank verse, we extract a part of the tale intitled *The Fugitive*:

' And, now I mark thy features, I behold
The cause of thy complaining. Thou art here
A persecuted Exile! one, whose soul
Unbow'd by guilt, demands no patronage
From blunted feeling, or the frozen hand
Of gilded Ostentation. Thou, poor PRIEST!
Art here, a Stranger, from thy kindred torn—
Thy kindred massacred! thy quiet home,
The rural palace of some village scant,
Shelter'd by vineyards, skirted by fair meads,
And by the music of a shallow rill
Made ever chearful, now thou hast exchang'd
For stranger woods and vallies.

What of that!
Here, or on torrid desarts; o'er the world
Of trackless waves, or on the frozen cliffs
Of black Siberia, thou art not alone!
For there, on each, on all, The DEITY
Is thy companion still! Then, exiled MAN!
Be chearful as the Lark that o'er-yon hill
In Nature's language, wild, yet musical,
Hails the Creator! nor thus sullenly
Repine, that, through the day, the sunny beam
Of lust'rous fortune gilds the palace roof,
While thy short path, in this wild labyrinth,
Is lost in transient shadow.

Who, that lives,
Hath not his portion of calamity?
Who, that feels, can boast a tranquil bosom?
The fever, throbbing in the Tyrant's veins
In quick, strong language, tells the daring wretch
That he is mortal, like the poorest slave

Who

Who wears his chain, yet healthfully suspires.
 The sweetest rose will wither, while the storm
 Passes the mountain thistle. The bold Bird,
 Whose strong eye braves the ever burning Orb,
 Falls like the Summer Fly, and has at most,
 But his allotted sojourn. EXILED MAN!
 Be chearful! Thou art not a fugitive!
 All are thy kindred—all thy brothers, here—
 'The hoping—trembling Creatures—of one God!'

Instead of copying Mrs. R.'s heart-breaking or terrific descriptions, we shall bring our readers acquainted with the ability which she displays in the line of playful satire, by quoting *The Mistletoe, a Christmas Tale* :

- ' A FARMER'S WIFE, both young and gay,
 And fresh as op'ning buds of May;
 Had taken to herself a Spouse,
 And plighted many solemn vows,
 That she a faithful mate would prove,
 In meekness, duty, and in love!
 That she, despising joy and wealth,
 Would be, in sickness and in health,
 His only comfort and his Friend—
 But, mark the sequel,—and attend!
- ' This Farmer, as the tale is told—
 Was somewhat cross, and somewhat old!
 His, was the wintry hour of life,
 While summer smiled before his wife;
 A contrast, rather form'd to cloy
 'The zest of matrimonial joy!
- ' 'Twas Christmas time, the peasant throng
 Assembled gay, with dance and Song:
 The Farmer's kitchen long had been
 Of annual sports the busy scene;
 The wood-fire blaz'd, the chimney wide
 Presented seats, on either side;
 Long rows of wooden Trenchers, clean,
 Bedeck'd with holly-boughs, were seen;
 The shining Tankard's foamy ale
 Gave spirits to the Goblin tale,
 And many a rosy cheek—grew pale.
- ' It happen'd, that some sport to shew,
 The ceiling held a MISLETOE.
 A magic bough, and well design'd
 To prove the coyest Maiden, kind.
 A magic bough, which DRUIDS old
 Its sacred mysteries enroll'd;
 And which, or gossip Fame's a liar,
 Still warms the soul with vivid fire;

- Still promises a store of bliss
While bigots snatch their Idol's kiss.
- * This MISLETOE was doom'd to be
The talisman of Destiny;
Beneath its ample boughs we're told
Full many a timid Swain grew bold;
Full many a roguish eye askance
Beheld it with impatient glance,
And many a ruddy cheek confest,
The triumphs of the beating breast;
And many a rustic rover sigh'd
Who ask'd the kiss, and was denied.
- * First MARG'RY smil'd, and gave her Lover
A kiss; then thank'd her stars, 'twas over!
Next, KATE, with a reluctant pace,
Was tempted to the mystic place;
Then SUE, a merry laughing jade
A dimpled yielding blush betray'd;
While JOAN her chastity to shew
Wish'd "the bold knaves would serve her so."
She'd "teach the rogues such wanton play!"
And well she could, she knew the way.
- * The FARMER, mute with jealous care,
Sat sullen, in his wicker chair;
Hating the noisy gamesome host,
Yet fearful to resign his post;
He envied all their sportive strife,
But most he watch'd his blooming wife,
And trembled, lest her steps should go,
Incautious, near the MISLETOE.
- * Now HODGE, a youth of rustic grace
With form athletic; manly face;
On MISTRESS HOMESPUN turn'd his eye,
And breath'd a soul-declaring sigh!
Old HOMESPUN, mark'd his list'ning Fair
And nestled in his wicker chair;
HODGE swore, she might his heart command—
The pipe was dropp'd from Homespun's hand!
- * HODGE prest her slender waist around;
The FARMER check'd his draught, and frown'd!
And now beneath the MISLETOE
'Twas MISTRESS HOMESPUN's turn to go;
Old Surly shook his wicker chair,
And sternly utter'd—"Let her dare!"
- * HODGE to the FARMER's wife declar'd
Such husbands never should be spar'd;
Swore they deserv'd the worst disgrace,
That lights upon the wedded race;

And vow'd—that night he would not go
Unblest, beneath the MISLETOE.

* The merry group all recommend
An harmless Kiss, the strife to end:
“Why not?” says MARG'RY, “who would fear,
A dang'rous moment, once a year?”
Susan observ'd, that “ancient folks
Were seldom pleas'd with youthful jokes;”
But KATE, who, till that fatal hour,
Had held, o'er HODGE, unrivall'd pow'r,
With curving lip and head aside
Look'd down and smil'd in conscious pride,
Then, anxious to conceal her care,
She humm'd—“*what fools some women are!*”

* Now, MISTRESS HOMESPUN, sorely vex'd,
By pride and jealous rage perplex'd,
And angry, that her peevish spouse
Should doubt her matrimonial vows,
But, most of all, resolved to make
An envious rival's bosom ache;
Commanded Hodge to let her go,
Nor lead her to the Mistletoe;
“Why should you ask it o'er and o'er?”
Cried she, “*we've been there twice before!*”

* 'Tis thus, to check a rival's sway,
That Women oft themselves betray;
While VANITY, alone, pursuing,
They rashly prove their own undoing.

Some Memoirs of the Life of Mrs. Robinson have lately appeared, which were partly written by herself. We shall pay farther attention to them, at a future opportunity.

ART. IV. *The Charge of Samuel Lord Bishop of Rochester, to the Clergy of his Diocese, delivered at his Second General Visitation in the Year 1800. Published at the Request of the Clergy.* 4to. 1s. 6d. Robson.

REVEALED religion having many open and many secret enemies, it becomes the prominent duty of the Christian Bishop to apprize his Clergy, and the Church at large, of the danger to which they are exposed; and to assist them in repelling every attack that may be made on the purity and integrity of their principles. In discharging this important office, the Episcopal advocate, who sensibly feels the infinite importance of Christianity, will be full of zeal and fervor: but this fervor should be restrained within the bounds of discretion, and this zeal should be associated with charity. A virtuous indignation

indignation must inevitably arise in the breast of every Christian, on tracing the conduct of the French Infidels, and on perusing those writings by which they attempted to discredit and subvert the Gospel. We therefore highly applaud the animation and intrepidity manifested by the Bishop of Rochester, in opposing himself in this Charge to the whole phalanx of French impiety and Atheism. 'The audacity,' the 'brilliancy of unprincipled wit,' and we may add the horridly profane sarcasms of Voltaire, in disseminating Deism; the philosophic ingenuity and subtlety of Diderot and D'Alembert, in propagating the still more shocking cause of Atheism; and the subsequent exertions of their disciples and followers; are proper subjects, especially in these times, of episcopal *ex cathedra* animadversion. We must confess, however, that we could have wished that, in the true spirit of the gospel, this champion for religion had "*put to silence the foolishness of these wicked men.*" When he terms Voltaire 'a miscreant' and 'a crafty villain,' and Condorcet 'a wretch,' every cool and reflecting reader will consider these abusive epithets as inconsistent with the sedateness of the episcopal character, and as offensively *out of place* in so serious and dispassionate an address as that of a Charge to the Clergy of the Christian Church. If deists and atheists rail, let not the Christian give them "*railing for railing; but contrariwise,*" let him treat their scurrility with a dignified contempt; opposing solid reason to frothy declamation, and the substantial evidences of the gospel to delusive sophistry.

In the instance of the French Encyclopedie, and in the case of Condorcet, Bishop Horsley has well evinced that even the mathematics were made subservient to infidelity. Of the latter, he says;

'Another instance I would mention, of science pressed into the cause of irreligion, is a work of the Marquis de Condorcet; a profound Mathematician, but a most hardened Atheist, and, as Atheists always are, an enemy to all moral order. This *WRETCHE*, a few years before the French Revolution, composed a work of deep erudition in the Doctrine of Chances; in which Problems of great curiosity and great difficulty were successfully discussed. But the book, besides its visible scientific purport, had a latent moral object; and this was, to insinuate an opinion, that there is no such thing as Certainty; consequently, no such thing as Truth; that verisimilitude (or probability) is the utmost to which we can attain; and that the only standard of verisimilitude is a majority of suffrages. For this problem was the professed subject of the book: "To estimate the probability of right decision by the majority of votes in popular assemblies."

This

This is unquestionable; and the general want of faith, in which the French Revolution found that unhappy nation, is a proof how sadly successful these apostles of irreligion had been: but the Bishop goes much farther, and supports *totis viribus* the representations of the Abbé Barruel and Prof. Robison, concerning the existence of a deistical or atheistical confederacy. Here we cannot follow him; and the subject, indeed, has already been sufficiently discussed in our pages: but, whether the French philosophers acted individually or in concert, they stand convicted of writing and speaking against Revealed Religion; and to them in a great degree must be attributed the infidelity with which their country has been deluged. Does the *whole* of the sin, however, lie at their door? Did not the profligacy of the French Court, the nature of their grossly adulterated system of Christianity, and the irregularity of some leading members of the Clergy, aid and assist the labourers in this work? On these collateral causes, Dr. H. is silent; and so far from making any reflections of this kind, he speaks of the French nation not only as one of the most distinguished of Christendom, but one of the most distinguished '*as a Christian nation.*' What we are to understand by this compliment, we are at a loss to divine. Its Monarch, indeed, was styled *Most Christian*: but never was there a people called Christian, whose morals were more corrupted. Not even Republican France could be more dissipated, nor 'use less discretion in the pleasures of women.'—Protestant Divines have for many years been in the habit of referring the Apocalyptic Beast, and Antichrist, to the Pope or the Papal Power: but they are now grown more polite to the Romish church than to call its triple-crowned head, *the scarlet whore of Babylon*; and the Bishop of Rochester refers the dreadful monster, exhibited in vision to St. John, to the *French Republic*.

After having indignantly reprobated the conduct of the French *philosophes* and German Illuminati, and shed some pious tears over the fate of the Gallican church, the learned and eloquent Bishop proceeds to take notice of the state of religion in his own country. Here, while he triumphs over the decline of *Socinianism*, he expresses some fears and apprehensions concerning *Methodism*. We quote both passages:

'The Laity of this country, the great majority I mean, have no better relish for the Socinian heresy than for plain Atheism. They think much alike of him who openly disowns the Son of God, and of him who denies the Father: insomuch that the advocates of that blasphemy have preached themselves out of all credit with the people. The Patriarch of the sect is fled, and the orators and oracles of Birmingham and Essex-street are dumb: or, if they speak, speak only to be disregarded.'

We leave the Socinians, or the Unitarians, as they now term themselves, to reply to this attack on them; and we submit it to our readers and the public at large, to judge whether Bishop Horsley has not fallen into the same fault for which Dr. Priestley has been justly stigmatized, viz. attributing to the advocates for the opposite faith, conclusions which they absolutely disavow. Dr. P., with extreme illiberality, called Trinitarian worship *Idolatry*; and is not Dr. H. equally unjustified in pronouncing that Socinianism is *blasphemy*? We refer it also to the sense of mankind to determine whether the term *fled*, in allusion to Dr. Priestley's departure from this country, be just and honourable to the Established Church. If Dr. P. *fled*, he must have been *driven*; and can that victory in a matter of controversy be ground for exultation, to obtain which any kind of persecution has been employed?

The passages relative to the Methodists are:

'In many parts of the kingdom new conventicles have been opened in great number, and congregations formed of one knows not what denomination. The pastor is often, in appearance at least, an illiterate peasant, or mechanic. The congregation is visited occasionally by preachers from a distance. Sunday-schools are opened in connection, with these conventicles. There is much reason to suspect, that the expences of these schools and conventicles are defrayed by associations formed in different places. For the preachers and schoolmasters are observed to engage in expences, for the support and advancement of their institutions, to which, if we may judge from appearance, their own means must be altogether inadequate. The poor are even bribed, by small pecuniary gifts from time to time, to send their children to these schools of they know not what, rather than to those connected with the Established Church, in which they would be bred in the principles of true religion and loyalty. It is very remarkable, that these new congregations of non-descripts have been mostly formed, since the Jacobins have been laid under the restraint of those two most salutary statutes, commonly known by the names of the Sedition and the Treason Bills. A circumstance which gives much ground for suspicion, that Sedition and Atheism are the real objects of these institutions, rather than religion. Indeed, in some places this is known to be the case.'

To this representation it is added; 'The Jacobins, I *very much* fear, are, at this moment, making a tool of Methodism.' In p. 25, the Bishop more than *fears*; he speaks positively, and from his own knowledge, to the fact. These, he says, were his words in the House of Lords:

'I said, that "Schools of Jacobinical Religion, and Jacobinical Politics; that is to say, Schools of Atheism and Disloyalty, abound in this country; schools, in the shape and disguise of Charity-Schools and Sunday-Schools, in which the minds of the children of the very lowest orders are enlightened; that is to say, taught to de-

spise Religion, and the laws, and all subordination." This I know to be the fact.*

Of all these circumstances, we have never heard one syllable but from this right rev. author; if we had, we should have deemed it our duty, as individuals, to expose them; and if Dr. H. *knows* what he here states to be facts, ought he to content himself with simply mentioning them in a Debate or in a Charge? Such an accusation, or even such an intimation respecting a large body of professing Christians, should be made only on the strongest ground of evidence; and if there be that evidence, it ought to be brought forwards, and put in full force.

When the Bishop proceeds to specify the immediate duty of his Clergy, we read him with approbation and pleasure. His advice to them, in commenting on the words of Paul to Timothy, to "take heed to *themselves* and to *the doctrine* *," (i. e. *the doctrine of Christ*; for Dr. H. judiciously observes that *thy* is a mistranslation,) we wish them all to diligently regard. Here we cannot resist the temptation to transcribe:

'The first part of the injunction, "Take heed unto thyself," is fulfilled in the fundamental part by those, who never suffer themselves to lose sight of the great work, to which the Holy Ghost has called them; and devote the far greater proportion of their leisure hours to useful study, and devout meditation. By the leisure hours of a Clergyman, I understand all that portion of his time, which is not taken up with his public functions. I am not at all aware, that it is the duty of a Clergyman, to assume such an austerity of character, as would entirely exclude him from general society. A different conduct seems to be recommended by the example of our Lord: who, while he went about doing good, refused not to eat with publicans and sinners. I rather think, that the duty of a Clergyman cannot be performed without something of a familiarity with his flock in particular, and with the world in general. Nevertheless, it is always dangerous to Religion, when the manners of the Clergy become too much secularized. This will always lower the order in the eyes of the people, and lessen their general reverence for the offices of Religion. This, however, will not happen, when the private hours of the Clergy, the younger Clergy in particular, are devoted, as they ought to be, to useful studies. The studious Clergyman will not be shy of being seen in public.—He will freely come abroad for recreation; he will make himself agreeable in the company, with which it becomes him to associate; and will not scruple to take a part in their amusements. But he will neither have leisure, nor inclination, to run the eternal round of giddy pleasure; as if diversion were the business of his life, and his professional business only his diversion. On the contrary, a mind habitually intent upon the greatest subjects, and a thirst for the highest knowledge, will discover itself in the dignified sobriety even of his relaxations; which will impress his fami-

* 1 Tim. iv. 15, 16.

lar friends and companions with respect, and the profane with awe; while the latter, however they may delight in the company, and pretend to applaud what they call the free and easy manners, will in their hearts despise, and not seldom to his face make a jest of the jovial gay Anacreon, in the formalities of a gown and castock.

O si sic omnia! We are sorry that we cannot extend our applause to this learned Bishop's account of the Sacrament of the Lord's Supper. He seems to us to be desirous of explaining the doctrine of our Protestant Church, respecting this Sacrament, into a very near resemblance of the Popish tenet of transubstantiation.

For the consideration, however, of the remaining parts of this Charge, we must refer the theological reader to the publication itself. In our preceding remarks, we trust that we have not been guilty of disrespect, nor of misrepresentation, nor of uncandid criticism. In solicitude for the honour and advancement of Revealed Religion; we would not be, and we trust that our pages will shew that we have not been, inferior to the Bishop of Rochester: but, confident of the final triumph of divine truth, we would prosecute the warfare against Infidelity and Superstition, with temper and dignity; employing no other weapons than those which are sanctioned by the Gospel; and which are equally honourable to the truth and to those who use them.

ART. V. *A Sermon preached at Dartford, at the Visitation of the Right Rev. the Lord Bishop of Rochester, Sept. 30, 1800.* By George Robson, A. M. Rector of Snodland in Kent, and Domestic Chaplain to the Lord Bishop of Rochester. Published by his Lordship's Command. 4to. 18. Robson.

OLD Daniel Burgess, being invited to preach an Ordination Sermon, chose for his text—*He made his snuffers of pure gold* (Ex. xxxvii. 23.); and punning on these words, he endeavoured to shew the peculiar purity and exemplariness required of those who undertake the ministerial or clerical function, while the advice of Paul to Timothy forcibly inculcated the same doctrine.—Mr. Robson, who seems to wish to excite in the Christian world more moderate expectations from the Clergy, has selected a text which is scarcely more applicable to the drift of his discourse than Daniel Burgess's *snuffers*. When St. Paul said to the Idolaters at Lystra, "*we are men of like passions with you*," he meant to declare only that he and Barnabas were human beings, and not Gods:—the position was not designed to lower any reasonable conceptions which the Church might form, respecting the religious and moral conduct

duct of its pastors and teachers. According to the Apostolic precept, the Clergyman is not only to be solicitous of *rightly dividing the word of truth*, but of being *an example to believers*; and it is better that the people should expect too much from him in this view, than that he should be encouraged to circumscribe the duties and obligations of his important profession. We do not suspect Mr. R. of holding a different opinion: but we fear that the purport of his discourse will be mistaken, when he accuses an antient Father* and a modern Bishop† of strange misconception, in applying 'to the *individual and personal* character of the priest, what was merely affirmed of him in relation to his *office*.' He adds indeed, 'it was not *personal* superiority in the priest above the rest of mankind, which these authors had in view, but it was the superiority and excellence of *spiritual over secular* concerns.' Allowing that this was their ultimate object, it by no means follows that the Father and the Bishop had fallen into a misconception. In as much as it is necessary to impress mankind with a conviction of the superiority of spiritual over secular concerns, so far it is expedient that those who publicly inculcate this divine sentiment should be required to express and enforce it, by setting an example of moral and religious purity in their own lives. It is true that it were absurd to exact from the Clergy a personal sanctity which it would be beyond the bounds and abilities of human nature to support: but this limitation does not exonerate them from the duty of peculiar circumspection; nor is it decorous, in a Visitation Sermon, to deliver one syllable which may have the tendency of impressing the minds of its hearers, and especially the younger Clergy, with the idea that they are to be less *examples than instructors*;—that they are to be less attentive to *practical holiness* than to *orthodoxy of faith*.

Who ever supposed that the Clergy were 'exempted from the natural passions of humanity?' The question is, are they not in a situation in which they are required, in a peculiar manner, to guard against and resist the infirmities of our nature; and is it not more conducive to the interests of religion to inculcate this watchfulness, than to attempt any apology for lax and negligent conduct?

We conceive that Mr. Robson is not warranted in asserting, as he does in p. 17, that 'the public teaching and expounding of the Gospel is by our Lord's appointment limited to a *certain order*, ordained to that particular function, in *regular and unbroken succession* from the Apostles.' Granting, however, this appointed order and this unbroken succession, (to say nothing

* St. Chrysostom.

† Bishop Burnet.

of an avowed call from the Holy Ghost,) it is surely not unreasonable to expect, from such superior religious advantages, superior religious fruit in the life and conduct of the individuals of this order, as well as in the matter of their exhortations. From men so circumstanced, we ought to look for habitual holiness; though, from the consideration of their being *of like passions with ourselves*, we should candidly excuse some defects.

Had extravagant notions been prevalent concerning the moral conduct of the clergy, or the perfection of the ministerial character, we should not have been surprized at the general tendency of this discourse: but, as the public makes no unreasonable demands on this head, there is more occasion for exhorting them to be *ensamples to the flock*, than to put them in mind of their being *men of like passions* with their hearers. In the conclusion, however, Mr. Robson addresses himself very seriously to his brethren; and we hope that this part will engage them to be more anxious to fulfil the high duty of their function, than prone to have recourse to the infirmities of our common nature, as apologies for habitual defects.

ART. VI. *Outlines of the Globe*. Vol. III. The View of India extra Gangem, China, and Japan.—Vol. IV. The View of the Malayan Isles, New Holland, and the Spicy Islands. By Thomas Pennant, Esq. 4to. 1l. 16s. Boards. White. 1800.

THE first and second volumes of this production were mentioned in our Review for April 1799, under the title of a "View of Hindûstan;" though we now find that they ought to have borne the same general title which is affixed to the present. From the manuscript to which we then adverted, the volumes now before us have been extracted, and edited by a son of the late ingenious author. To that review, we also beg leave to refer for the plan of the work; which has been extended without alteration to the countries described in these volumes.

VOL. III. The province of Chittagong terminates the possessions of the East India Company, and forms the south east frontier of the suba of Bengal. Adjoining to it is the kingdom of Aracan, which stretches along the coast to an extent of two hundred miles. Its topography is obscure; and the course of its river, the Tocosannæ of Ptolemy, is faintly traced beyond the capital.

From the mouth to the capital is about fifty miles; most of the way deliciously bounded by woods or plantations, animated by the gambols of the monkey tribe, or the gay flights of numbers of peacocks. The city of Aracan is seated most singularly, in a valley surrounded

surrounded with vast and craggy mountains. These are assisted by art, so as to prove the most substantial fortifications. The entrances are cut through the solid rock, as are the gates of the city. The precipitous face of the mountain serves for walls; besides these, it has a citadel, and other artificial defences. The city is said to be fifteen miles in circumference, and to contain a hundred and sixty thousand inhabitants. The regal palace is very magnificent, and highly adorned and enriched with works of massive gold.*

Since the death of Mr. Pennant, the public have learnt that this whole country has been conquered in 1783, by the Burmans; and the particulars of the conquest are detailed in Major Symes's narrative of his Embassy to Ava*. A brief and very erroneous account of the last mentioned country succeeds in the present work: but, previously to the publication of the British Embassy, the topography of Ava was very little known. The same observation applies with equal force to Mr. Pennant's account of Pegu and the Andaman islands; and it is to be regretted that these volumes, which are professionally compilations, appeared so shortly after that of Major Symes, that the editor probably was not able to avail himself of the information supplied by the Major, which would have rendered them as perfect as circumstances would admit.

Mr. Pennant observes that 'the natives of the kingdom of Pegu resemble the Malays in appearance and disposition, but are more industrious. Their masters, the Burmans, (whom Mr. P. still calls Buraghmahs), are liker to the Arabs in their features, and of a darker complexion than the Peguers, (Pegu-vians); they are much addicted to commerce, and so numerous; even in Pegu, as to exceed the natives as one hundred to one.'—We believe that it is now universally admitted that the inhabitants of the whole Asiatic continent, eastward of India, possess a peculiar and very decided configuration; which distinguishes them, as an original race, from their western neighbours.

The great Andaman is here said to be 'about a hundred and eight miles long, and extends from north to south, between lat. $13^{\circ} 53'$, and $12^{\circ} 16'$; it is nearly of the same breadth, or between thirty and forty miles.' Whether this passage originates in misconception, or in typographical blunder, it were useless to inquire: but the real dimensions are 140 miles in length, and 20 in breadth. We apprehend that the circumstances mentioned by Hamilton, whence he inferred that these islands abounded in quick-silver, must have been destitute of any solid foundation.

* See M. Rev. vol. xxxii. N. S. p. 113.

The Burman empire stretches along the coast, as far south as the port of Mergui, in lat. 12°. 12'. once a flourishing emporium, and the Daona of Ptolemy. 'During the inundations, there is a passage from Mergui to Juthia, the capital of Siam, which may at that season be performed the greatest part of the way on rafts in three weeks, but in the dry season the passage takes twice the time.'

From Mergui, the peninsula of Malacca protrudes in a south easterly direction into the Indian ocean, terminating at Cape Romano, (doubtless a Portuguese appellation,) the most southerly point of the continent of Asia. Its medium breadth is about fifty miles, and of its inhabitants, excepting the Malays, little is known; though the Dutch have long possessed a flourishing emporium on its coasts, and the English have an island in its vicinity. Of the city, we have here the following account:

'Malacca is exceedingly large; much of it is built of strong bamboo, but the several stone buildings, among them the governor's house, make a conspicuous figure. A narrow but deep and rapid river divides the town from the fort, one side of which is washed by the sea; in that part only four leagues distant from the low land of Sumatra. Malacca is a true emporium, or mart, the great magazine of the various rich articles of commerce brought from the several countries I have mentioned. As to the peninsula itself, it yields little more than the fine tin and elephants teeth. Let me conclude, that this place was celebrated among the antients for its gold, for which reason it was called by them Aurea Chersonesus; still, at no great distance from the city of Malacca, is a hill called the Golden Mount. Some imagine this to have been the Ophir of Solomon.'—'If the birds which we know at present by the name of peacocks, were those intended, this, or some other part of India, might have been the place from which Solomon drew his wealth; peacocks being found in plenty here, and unknown, at least in those days, in any part of Africa.'

The author afterward mentions a river which disembogues itself on the eastern side of the peninsula, as abounding in gold; and he adds,

'Well may this country have been supposed to have been another Ophir. Josephus seems to have been right in fixing it here, if his authority was good for saying, that the ancient name of this part of India was Sophora, now the land of gold, which comes so very near to that of Ophir. Possibly the word is the Malayan name for the precious metal. M. Le Poivre says, that the inhabitants of Malacca and Sumatra call their gold mines ophirs, and Mr. Marsden, that in the latter island is a hill named Mount Ophir, possibly from its having once been rich in gold.'

On the eastern side, Pahang, Tringano, and Patani, are the only places noted; after which the peninsula closes in the

gulph of Siam. Here, the manners of the Malays are described from M. Le Poivre; and before we quit the peninsula, its animal and vegetable productions are recapitulated.

Mr. Pennant justly animadvert on the very suspicious account given by M. Sonnerat, of the wild men of Malacca, who inhabit the woods and live in the trees; and of whom it was said that, if they see any one pass, they instantly descend and devour him. That traveller even states that he saw one, who was taken young, in the service of a counsellor of Malacca. 'What a treasure,' says Mr. Pennant, 'would he have been to Lord Monboddol!'

The kingdom of Siam occupies the centre of the gulph, stretching its unknown boundaries from the coast, between the Burman dominions on the west, and the territories of Laos and Camboja on the east. Recent publications have added little to our knowledge of this country; and Kämpfer, with M. de la Laubere, must still maintain their almost exclusive title as the historians of Siám. The river Manam, (which, Kämpfer says, signifies *mother of humidities*, but we suspect that it is only the Malayan appellation,) the Serus of Ptolemy, flows through its whole extent, and its annual inundations bestow the highest fertility.

'It is deep, rapid, and broader than the Elbe; the upper part is rocky, violent, and interrupted by cataracts; the lower, divided into several channels, passes through a very level country to the sea. The banks of the river are covered with trees, animated by monkies, (*a bold figure*); numbers of villages may be seen on both sides; the houses generally stand, I may say, upon stilts, or lofty posts, so that the water during the inundations may pass without incommoding the occupiers. Near the city of Judia, many of the villages consist of inhabited ships, or floating habitations; these occasionally move from place to place when the waters are high; the inmates keep a sort of fair, and dispose of their various commodities.—Judia, the capital, is seated in lat. 14°. 30'. on a low island in the form of a man's foot. It is surrounded with a lofty brick wall. The streets are straight, and accomodated with canals, which pass quite through from east to west.'

Mr. Pennant states the religion of the country to be the same with that which is inculcated by the Brahmans; this, however, is a mistake, for the Siamese are sectaries of Buddha, in common with all the nations introduced into the volume before us. Were the Chinese objected to us as exceptions to the foregoing observation, we should reply that the religion of Buddha (a name which they have unaccountably corrupted to Foe) is the religion of the court of Peking, and of a great majority of the inhabitants of China; and that the philosophical tenets of Con-fu-tzee seem nearly confined to the men of letters: so that

that whether we consider the ascendancy of the court, or the numbers of its votaries, the schism introduced by Buddha, into the Hindu faith, appears to be the prevailing religion among the inhabitants of China. In Japan, as far as we know, it is the only tolerated system.

From the river Liant, a tract of sandy desert skirts the coasts of Camboja, to the town of Pontheamas, which Le Poivre states to have been a Chinese colony. Hamilton found it in ruins in 1720; the French traveller represents it, in the middle of the century, "as the most plentiful granary of the eastern part of Asia; the Malays, Cochin-Chinese, and Siamese, whose countries are naturally so fertile, considering this little territory as the most certain resource against famine:" but the descriptions of M. Le Poivre partake too much of the rhetorical style, to admit of accuracy of detail. The Cattigara, *Sinarum Statio* of Ptolemy, appears to have been in the vicinity of Pontheamas. From Camboja, the yellow gum called gamboge derived its name; sandal wood, sapan wood, stick lac, aloes wood, and a great variety of drugs, are also the productions of this country: but its fertile soil pours forth in abundance all the vegetable products of the eastern world. It was visited in the ninth century by the Arabian travellers, and Mr. Pennant animadverts on their account of unicorns found in Camboja: but the fault lies with their translator; for carcdan signifies the Rhinoceros, in their language.

A small territory named Champa bounds the maritime parts of Camboja on the east; the aboriginal people, called Loyes, are large, muscular, and well made; their complexions tinged with red, their noses somewhat flattened; their hair long and black; they have small whiskers, but scarcely any beards; their dress, a shirt and breeches of cotton, the last covered with a sort of petticoat of white cloth, fringed with silk, according to the circumstances of the wearer. The king of this petty principality resides at Feneri, and is represented as tributary to Cochin-China. Among the mountains, we hear of a people named Moyes, who are described as a savage race; and both Loyes and Moyes are found again between the frontiers of Cochin China and Tonquin: but we wonder that it did not occur to Mr. Pennant, that the persons comprehended under these appellations are the natives of the country generally denominated Laos in our maps, whose dominions appear to extend to the sea, including the small maritime tract of Champa.

The land of Anam, called by the Portuguese Cochin-China, bends its hollow curvature along the coast from lat. 13°. to 17°. 30'. Its wall, built to defend the inhabitants from the incursions of the Moyes, has not availed to secure them from
foreign

foreign invasion; nor did it prevent, in the beginning of the 17th century, a Tonquinese family from mounting the throne.

'The galleys or shipping of the Cochin-Chinese are very numerous; part, allotted to the defence of the coast, are finely painted and highly varnished, rowed with fifty oars, and carry a cannon at the head, and two small ones on each side. Notwithstanding the Cochin-Chinese can neither cast cannon, nor make fusils, their dexterity, says Mr. Borri, in the art of gunnery, is amazing; not one of our Europeans dare enter the lists with them. The navy of this country is quickly manned, every family being bound to furnish a sailor, who serves with great alacrity, for they are well treated, and their wives and children supported during their absence; all are dressed in an uniform, and when they are about to engage, put on a gilt helmet and a cloak, which leaves their right arm quite bare. Numbers of their vessels are employed in the fisheries; the fish are found in vast abundance, and form a great article of commerce; fish and rice constitute the principal food of the Cochin-Chinese.'

The maritime coasts of Tonquin extend from the last mentioned kingdom to the empire of China; its shores are skirted with groupes of little isles; the coasts are very low; and the whole interior is a flat of the richest soil, productive of all the fruits, and possibly all the vegetables, of the tropics. Pastures, or rice grounds, border the banks of the most considerable rivers. The *Rhus Vernix*, which furnishes the beautiful lacquer for japanning, is also a native of Tonquin; its effects are deleterious to those who are employed to gather it, causing swellings, blisters, and acute pains, and sometimes making the skin peel off. 'There are men who will handle the tree or touch the juice with impunity; while others will be visited with all the deleterious symptoms by being in the way of the smoke, or even of the wind which carries the effluvia of this singular tree.' Tonquin also has its river subject to annual inundations. Cacho, the principal city and seat of royalty, stands on the banks, and consists of twenty thousand houses; the walls are usually made of mud and thatch, but some are of brick, covered with tiles. The palace occupies a great extent: but here, as in Japan, and recently in Seringapatan, the king is a prisoner; and his authority is exercised by an officer, whose family have long transmitted the executive power in hereditary succession. The river disembogues itself in the gulf of Tonquin. 'The great Halley gives an account of the surprising tides in this bay; each flux is of twelve hours duration, and its reflux the same; so that there occurs but one high water in twenty-four hours.'

'Mr. Pennant's account of China, which he styles the miracle of governments, is particularly superficial and unsatisfactory. The recent embassies have thrown much light on the topogra-

topography, and on the domestic and political œconomy, of this vast nation. These sources of information, indeed, did not exist when Mr. P. compiled his account: but we apprehend that a much more instructive compendium might have been formed even from anterior publications, than that which is now under our inspection.

‘ The despotism of the Emperor (says Mr. P.) is founded upon law and custom; not expressed, yet fully implied, it seems admitted that he can do no wrong! but it is on the principle that the state is a vast family, that the Supreme Being hath placed him on the throne, in order that he may be a father and a mother to his people. In consequence of this, a strong sense of his duty is continually before his eyes. The mandarines and princes of the blood are at liberty to remind him of any faults he may fall into; and even the people, if they find him negligent; are as ready to become tumultuous as in any other country. The grand secret of government in the Emperor is the unremitting attention paid to the conduct of the mandarines and other magistrates, who are carefully watched, and most severely punished on every failure of duty. He himself is perpetually anxious to consult the good of his subjects, and to avoid incurring their hatred or contempt.’

Fraud and pride are stated by this author to be the national vices; the last being excited by their pretensions to antiquity. ‘ The founder of their empire is said to be Fo-hi, contemporary with Phaleg and Heber. His subjects were at that time nearly in the state of nature; they fed on what they caught, ate it raw, drank the blood, and clothed themselves with the skins. He taught them to make fishing nets and snares for birds, to rear domestic animals, and instructed them in various arts of life; and, to soften the fierceness of his people, invented music, and the instrument Kin. China was inhabited about two thousand years before the Christian æra, demonstrable from an eclipse observed at that period.’ In the same style, Mr. Pennant proceeds to inform us that Fohi introduced the religion of Noah; and that their five volumes, correspondent with the Mosaic history, are esteemed the sources of science:—but do these volumes correspond with the Pentateuch in any thing but number? About 600 years before the Christian æra, Lau-kyun founded the sect of Tau-tse, whose tenets resembled the doctrines of Epicurus; placing felicity in voluptuousness, and denying the immortality of the soul. Confucius, who reformed the religion of China, was born 551 years before Christ, and was contemporary with Pythagoras; and the dogmas of Foe were transported from India, about 65 years after the birth of Christ. They were well acquainted with the circulation of the blood, long before the Europeans attained that knowledge; the practice of inoculation was also prevalent
from

from an early period; and in consequence of the ravages of the small pox in Tartary, the Emperor Cam-hi sent physicians into that country, to inoculate the children of his Tartarian subjects. The art of printing was discovered in A. D. 904: but the Chinese do not use moveable types for that purpose. Paper was first made in the year 95; and gunpowder, though of remote invention, continued, till the arrival of the Jesuits, to be used only on festive occasions, and in fire-works,—in which they excel all the rest of the world. In the art of inlaying with their beautiful varnish, they are surpassed only by the Japanese; and the manufacture of silk is ascribed to a queen of the third emperor, who reigned after the patriarch Fo-hi. Cotton and wool also furnished materials for the industry of the Chinese; and the origin of the porcelain manufacture is too remote to be traced in that country.

After a slight sketch of the coasts of China, Mr. Pennant treats of the peninsula of Corea; and, in a manner somewhat desultory, adverts to some places in the neighbouring countries of China: concluding with an imperfect faunula of that vast empire, but such as in the present state of our knowledge will not prove unacceptable.

‘Gin-seng, the celebrated medicinal plant of the Chinese, is found in Tartary, and Corea, and even in the provinces of Shan-si, and Ho-nan, in China itself; but the latter is of an inferior kind. It grows on the steep slopes of wooded mountains, or rocks, and on the banks of deep rivers. The root which is applied to use is said to be of the shape of a man.’—‘It was introduced into England in 1740, by the worthy Peter Collinson, and now flourishes in Kew garden. Linnæus first called this plant *Sion Ninsi*, afterwards *Panax quinquefolium*.’—‘Our physicians depreciate the virtues of this root so much, that notwithstanding it has found a place in our dispensatory, yet it is not mentioned in the *Pharmacopœia* of the London College. The power of the medicine may possibly have been exaggerated in China, but I never can believe that a root so universally esteemed in that empire for ages, can be destitute of virtues.’

The experiments, Mr. P. observes, on which the English physicians founded their opinion, were from dried and exhausted specimens.

Among the animals which serve as food to this highly civilized people, the author enumerates dogs, cats, badgers, rats, and bats. The white breasted Crow leaves China and the Mongols country in vast flights in the spring, and emigrates into the neighbourhood of the lake Baikal. Peacocks are found in vast numbers, in a state of nature as well as domesticated. Mr. Pennant enumerates seven species of pheasants in China; the golden is not uncommon in the British mena-

geries, and is hardy enough to bear our climate in a state of liberty, if the brilliancy of its colours did not make it the mark of our poachers, and quickly bring on its extirpation. 'The Chinese in severe weather keep their hands warm by holding a partridge, or the Chinese quail, between their palms, as appears in many of their painted papers.'—Among the fishes, we find the following account of the *Tetrodon Hispidus*:

'The length of this species is about nine inches; the upper part of the body is smooth, and of a green color; between the pectoral fins, across the back, is a crescent, black in the middle, bounded on all parts with bright yellow; the belly covered with whitish spines. It can blow itself up into the form of a round ball. This, and some other species of the same genus, are frequent in the Chinese and Japanese seas. This specimen was taken in the Canton river. The effects of eating it are dreadful; if eaten entire, it is the most fatal of poisons, and even when dressed according to art, has had mortal consequences; yet such is the rage of epicurism, that many people will not forbear this tempting viand. It is often used by such who in despair wish to remove themselves into the other world. The Chinese boil with it a branch of the *Illicium Anisatum*, in order to secure the effects. Such is the strange but true history of this deadly fish.'

It now remains that we should pursue our analysis to the Isles which, commencing in the seas washing the south of China, sweep an irregular line to the utmost limits of our geographical knowledge.

Formosa lies opposed to the coast of Fu-chien, at the distance of about sixty miles from the nearest place. The length is ninety leagues, and the greatest breadth about thirty. Notwithstanding its proximity, it remained unknown to the Chinese till 1430, and continued independant of that government for more than two centuries later.

'The greater part of the western side is inhabited by Chinese, the natives have the eastern entirely to themselves; those which continue on the western are not better than servants to the colonists, except the inhabitants of three out of the twelve districts formed by the Chinese, which have revolted. The Formosans are a fine people, and of remarkable swiftness, which they attain by practice, so that they can outrun a horse at full speed. Their shape is easy and slender, their complexions olive, and their hair sleek, and hanging over their shoulders. In the southern part of the isle they wear a linen wrapped round the middle, and falling to the knees. in the northern, the skin of a stag made into a sleeveless jacket. Their bonnet is formed of Banana leaves, adorned with tufts of the feathers of cocks or pheasants.'

The situation of this island has probably undergone some change since the above was written; for in 1787, M. de la Pérouse

Péyrouse sailed through a Chinese fleet destined to transport troops to quell an insurrection which had broken out in Formosa.

The Liquejo, or, as they are named by the natives, the Riuku Isles, intervene between Formosa and Japan. Kintchin is the most considerable in point of size, and is inhabited chiefly by Chinese, who fled from the Tartars during the last revolution. On their arrival, they found a people speaking a dialect of their own language; yet it appears that the religion of these isles partakes more of the Japanese than of the Chinese origin; since they have a Dairi or ecclesiastical governor, to whom they pay great respect, and whom they suppose to be lineally descended from the gods of their country. He resides at the isle called by Kæmpfer, Jajama, not remote from Osima, an island of second magnitude. That island, and another larger, called Tanasima, (Sima signifies an island,) 'with several lesser, extend north and south to the Liquejo islands, and form the links between them and Japan. Between the isle of Tanasima and that of Liquejo, are the straits of Van Diemen.'

The Japan isles extend from the 30th to the 40th degree of north latitude. 'The coasts are rude and rocky; and the circumambient seas, which rage with storms during nine months of the year, are shallow, filled with shoals and rocks, and extremely subject to frequent shipwrecks. Off this coast are two dangerous whirlpools, not less tremendous than those of the famous Maelstrom near the Norwegian shores; there are frequent instances of ships being absorbed in the vortex, and of their shattered fragments being flung up at the distance of many leagues. The poets of Japan make constant allusions to these horrible phænomena.'

From Kæmpfer and Thunberg, Mr. Pennant has extracted his information relative to the Japan isles; though unfortunately he had not the full benefit of the discoveries of the last mentioned intelligent writer, whose travels did not appear till two years after this account was composed. Among the articles in the Flora, we remark Tobacco; which plant, with the habit of using it, was introduced by the Portuguese.

'The camphor-tree, *laurus camphora*, grows to a vast size in all parts of Japan, and its islands.—The camphor is extracted from the wood by the peasants, who cut it into small pieces, and boiling them in water, obtain this drug, which they sell very cheap. The Japanese value the camphor of Sumatra and Borneo much more than their own; the last is native, and gathered on the stumps of the trees, or taken from the interstices in small chrystallized lumps. There is another kind found fluid, which is called camphor oil; but never on the same tree with the concrete.—Neither of the trees which yield the Sumatran or Bornean camphors are yet ascertained. Kæmpfer

says, *ex Daphneo sanguine non est*, so it certainly is not even of the same genus as the Japanese.

This matter has since been elucidated by Mr. Macdonald, in a paper published in the *Asiatic Researches*; who mentions having seen a tree near Tapanuli in Sumatra, from which three pounds of camphor and two gallons of oil were procured. The tree he describes as of the *Enneandria Monogynia* of Linné, differing in a small variation of the leaf from the *Arbor Camphorifera Japonica*, and very much resembling the Bay.—We remark, also, with the greatest surprize, *Nymphaea Nelumbo*, and *Ocymum Inflexum*, which are said to be sacred to the idols. These are the beautiful many petalled lotos, the emblem in Hindustan of the consort of Siva, and the flower on which Vishnu is represented reclining in the midst of the waters; the second is the Tulasi, sacred to the last deity in the character of Heri:—but do the Japanese worship these Indian deities?

As Mr. Pennant's account of Japan can present nothing new, we shall abstain from quotation. The voyage of M. de la Pérouse has totally changed our ideas of the position of the countries to the north; and the editor of this volume has very properly subjoined, in a note, the alterations on our maps which that unfortunate navigator's discoveries suggest. It now appears that the Japanese apply the term Jesso to the small island formerly known by the name of Matsuma, from its chief town, the seat of a Japanese colony. Twelve leagues north of this isle, commences the land of Sacchalín, which stretches to the mouth of the river Amur; where it is only separated from the continent by a creek, insufficient to admit the passage of a ship. This island, or *presqu'isle*, extends from the 46th to the 54th degree of north latitude. The opposite coast of Eastern Tartary presents a thick forest, abounding with wild animals, but rarely trodden by the foot of man; though the appearance of tombs, with Chinese coin and silver ornaments scattered near them, on the earth, bespeak the occasional residence of the wandering Tartar.

We have now concluded our analysis of the third volume of this work, and must defer to our next number some account of the contents of the fourth.

[To be continued.]

ART. VII. *A Letter, addressed to John Whitmore, Esq. M. P.* Member of the Committee of the House of Commons on the Coal Trade; pointing out the impolicy of the proposed Measure of obtaining a Supply of Coal from the manufacturing Districts to the Metropolis, the Causes of the High Price of Coal, and the Means of an immediate and continued Reduction of Price. By Henry Grey Macnab, M. D. 4to. pp. 52. 5s. stitched. V. Griffiths. 1801.

FOSSIL coal being a most essential article of domestic commerce*, it is important to have all the circumstances relative to it well understood; and the writer who ably discusses this branch of internal trade may be pronounced to be a contributor to the public weal. Dr. Macnab appears to us in this light; and though he may be suspected of leaning somewhat to the side of the coal owners, he manifests such a real knowledge of the subject, that he must be perused with satisfaction and advantage. Independently of the object which he has principally in view, he details a variety of interesting particulars respecting *both ends* of the coal trade.—It may not be generally known that ‘the Newcastle chalders should weigh, by act of parliament, 53 cwt.; and that eight of these chalders are equal to fifteen London *pool* chalders;’ to which it should be added that the chalders, or chaldron, ultimately delivered to the consumer, is still less than the chaldron in the pool: whence it will be perceived that the word chaldron conveys very different ideas, and that this confusion in the use of the term must open a door to deception and fraud. Dr. Macnab has proposed no remedy for this evil: though he has not been inattentive to the taxes on coals of every description, and has suggested a mode by which they may be equalized, viz. by levying a given proportion of income, on the principle of the Income Tax.—As there is no prospect of such a measure being adopted, we may spare ourselves the trouble of commenting on it.

Dr. Macnab considers the coal trade as dividing itself into three leading branches,—coal mining,—the carrying trade,—and the business of unloading, buying, selling, and delivering the article of coal in the different sea-ports, coastways, and particularly in the city of London.

On the first branch of the subject, he offers this general information: ‘The sums expended in boring, sinking, drifting, purchasing materials, such as wood, iron, ropes, bricks, and other articles necessary in coal-mining, independent of the money paid for the exclusive privileges of working collieries, and way-leave-

* Dr. Adam Smith deems it a *necessary of life*.

lent, amount, in common, from six thousand to forty thousand pounds and upwards, on each colliery.'

This statement must impress an idea of the magnitude of the trade, which the subsequent details will confirm. It appears from the author's calculations, on which he says we may rely, that the number of persons employed in and dependant on the coal trade, on the river Tyne, is 38,475

The number of persons employed, &c. on the river

Wear

26,250

Making a grand total on the Tyne and the Wear of 64,725

To this estimate he adds a statement of the amount of the capitals employed in this trade; which will be found, he believes, to be pretty just.

There are upwards of 50 collieries in the neighbourhood of Newcastle and Sunderland; the capital employed in which, including the cost of Keels, &c. is upwards of £.1,030,000

The capital employed in shipping in the rivers

Tyne and Wear, in the coal trade,

1,400,000

The capital employed by the buyers in London

exceeds, on a moderate calculation,

700,000

Total of capital employed

3,130,000

Respecting the management of the coal business in the river Thames, it is remarked that

'The *Coal Trade* alone, which exceeds the foreign commerce in the number of ships annually discharged, requires double the number of craft which is found necessary for the whole import and export trade of the river. 2196 barges, averaging about 33 tons (amounting in the whole to 72,468 tons) are chiefly employed in the coal importation.

'On some occasions, about 90 colliers (each requiring, on an average, 13 barges) are discharging at once, 1170 coal craft will then be laden with coals, occupying different parts of the Pool at the same time; while the chief part of the remaining craft, above and below bridge, are used as floating warehouses, until the coals can be disposed of.

'The monthly supply of coals for the metropolis is estimated at 300 cargoes, of 220 chaldrons each, or 66,000 *chaldrons*. It is therefore no unlikely supposition, that (with some exceptions) 30,000 chaldrons, on an average, remain exposed to depredations in open craft on the river all the year round.'

After this view of the extent and importance of the coal trade, Dr. Macnab proceeds to plead the cause of the coal owners of the North; and to justify a sort of combination among them, which he maintains to be as much for the public

REV. SEPT. 1801.

E

benefit

benefit as for that of the individuals concerned.—It is acknowledged that ‘a general agreement had been entered into by the coal owners to vend only a proportional quantity of coal in a given time from each colliery;’ and the Dr. contends that it was necessary to prop up the coal trade by such a regulation, which, though in its complexion it be contrary to law, is good in spirit, and beneficial in its effect. For this purpose, he adduces the evidence of Nathaniel Clayton, Esq. given before the Coal Committee of the House of Commons; and it must be confessed that he makes a plausible case in behalf of the coal owners; for Mr. C. thus strongly expresses himself: “I have no doubt, that one of the motives which led to this agreement, was the securing to the mine adventurer, an adequate profit upon that adventure; and I am equally clear (meaning to give a most impartial judgment on the question) that the public have been in the final result materially benefited by the operations of the agreement.” By this last assertion, Mr. C. means that collieries have thus been worked, and made to yield a regular supply at a legitimate price, which otherwise must have been abandoned; and which, if once abandoned, could never have been resumed.

Such is the manner in which the author resists the censure directed against the coal owners of the North for their combination: but we have not local knowledge sufficient to decide how far his arguments are convincing. He speaks with much confidence on the subject which he discusses; and he hopes that the views which he has taken of it will not be deemed irrelevant, when the wide range of its operation is fully considered.

Dr. Macnab contends that a sufficient difference is not maintained between the price of the superior and that of the inferior coals, and that considerable inconveniencies arise from this circumstance. He says; ‘I have made many experiments on the superior and inferior Newcastle coals for domestic use; and I have invariably been of opinion, whether we have in view economy or comfort, that the best Newcastle coal is preferable to the worst, in much higher proportion than the relative prices at market.’

Few will be able to decide on the general question here discussed: but of this concluding remark every house-keeper is able to appreciate the value, and may apply it to a *saving* purpose.

The subject again comes under consideration in the succeeding article.

ART. VIII. *Observations on the probable Consequences of even attempting by Legislative Authority to obtain a large Supply of Coal from Staffordshire to the Metropolis; on the Iron Trade in Staffordshire and Shropshire in the large way; on the Iron and Copper Trades at Birmingham in the small way; on the Price of Coal to the Inhabitants of London and Westminster; on the Collieries in the North; on the carrying Trade of Sunderland and Shields; and on the Navy of Great Britain. In a Letter to William Manning, Esq. M. P. Chairman of the Honourable Committee of the Coal Trade. By Henry Grey Macnab, M. D. 4to. pp. 112. 10s. 6d. stitched. V. Griffiths. 1801.*

IN this second letter, written at a short interval after the first, (see the preceding article,) Dr. Macnab prosecutes the important discussion relative to coal and the coal trade; and though he has here avowed himself to be deeply interested * in the general subject, we are not the less solicitous of following him through his statements, and arguments, which he has been very indefatigable in collecting and arranging. Persuaded that they may be instructive as well as amusing, we shall proceed to the enumeration of some of them.

We are informed that ‘the thickness of the main veins of coal about Dudley in Staffordshire is in general from ten to eleven yards, but varies from eight to thirteen yards; and that there the best coals are sold at the pit for 6s. per ton of 21 cwt. of 120 lb. to the cwt.’

That ‘the seams or veins of Yorkshire coal are from three to ten feet thick, and that the best Silkstone coal is worth at the pit 3s. per ton.’

That ‘the Cumberland mines, worked by 570 pitmen, produce per week 3960 waggons, each waggon containing one London chaldron and a quarter;’—and that

‘Newport coals (supposing the scheme would answer) might be brought from Wales by the canal navigation, to the annual amount of from 50 to 100,000 tons.’

Abundant as the mines of coal are in the internal parts of the kingdom, Dr. Macnab resists the idea of opening a supply for the metropolis from these sources. He lays before us, however, the opinions of Mr. Raby and Mr. Hardy, given in evidence to the Committee of the House of Commons on the Coal trade; the former of which considers, in opposition

* His words, perhaps, ought to be given: ‘My situation in life, embarked as I am extensively in the lottery of mining, affords daily arguments which compel me to be “feelingly alive” to every measure which will risk, even in the most distant degree, the regular movements of the members of the unwieldy body of miners and manufacturers.’

to the principle maintained by the Doctor, 'a competition between the Staffordshire and Newcastle collieries as the only means of keeping down the price;' and the latter deposed that 'the opening of a new market for coals of the district, about Bradford in Yorkshire, would not much enhance the price to the manufacturer, as the quantity of coals is so great that there are sufficient for both.' To rebut this testimony of Mr. Hardy, it is remarked that he means only the quantity of *unworked* coal, or the quantity in the bowels of the earth; and that he has not taken into consideration the difficulty of obtaining an increased number of pitmen. A correspondent of Dr. M. also has declared, that 'there cannot be two opinions about the injury which the Shropshire and Staffordshire manufactories would sustain from the exportation of large quantities of coal from these countries;' and he himself positively asserts that 'destructive evils would be consequent on the very attempt to establish the plan in agitation, of an inland supply of coals, by canal navigation, duty free.' 'A short time (he says) will prove that the new source will neither be so convenient, nor economical as the old. In the mean time, many of the mines of inferior coal in the North will be lost, and should a continued frost take place, such as we have frequently had within these ten years, the metropolis would be completely at the mercy of the collieries of the North.' His doctrine therefore is, that it is for the benefit of London and Westminster to depend on these Northern collieries, as they have been accustomed to do; since in these cities the supply from them has been so abundant, excepting under the extensive operations of war, as to reduce the price of the article so much as to render a regulation in the trade necessary, in order to prevent the ruin of the inferior mines.

All these objections merit the attention of the legislature; but, as they are far from being unanswerable, they will perhaps excite the animadversions of some gentlemen, who to a general view of the subject may unite that local knowledge which we cannot be supposed to possess. The opening of a new source of supply of coals for the metropolis, and the parts adjacent, must produce some changes in the trade, and some injury to individuals: but that specific measure may not be so national a tragedy as Dr. Macnab has supposed. However, it ought in all its parts and relations to be fully discussed; and we shall therefore attend him in his statements of the operation of the proposed measure on the iron and copper trades. We are informed, that 'the quantity of bar iron made in Great Britain, when wood charcoal was used, for that purpose, was never more than 20,000 tons in one year;—that on account of the

8

scarcity

scarcity of wood, it was reduced to less than 13,000, at the time when the mode of making iron with mineral coal was introduced:—that we then imported from 60 to 70,000 tons of bar iron:—that we now make three times as much as formerly, and have diminished the import one third;—and that, if our exertions be not obstructed, we shall in ten years more reduce it another third, producing an advantage to the country of upwards of 1,000,000*l.* per annum. Such a trade as this, it must be for the interest of the Government to promote. Now it appears, by a variety of calculations and estimates given in these pages, that, if, by opening a communication with the London market, the price of coal in the manufacturing countries be raised 2*s.* per 20 cwt. the pressure on the iron trade would be great; and that, if the advance exceeded 2*s.*, the iron trade in the large way would be at a stand.

The effect on the copper trade is also detailed; and some facts are exhibited which ought to arouse our vigilance, and induce us to act with wisdom. It is stated that the copper manufactory at Birmingham has decreased one half;—that much pains have been taken in France, Germany, and Italy, to rival us;—and that the very change of religion, by abolishing the extravagant number of holidays in Roman Catholic countries, has assisted the growth of foreign manufactures. Hence we have lost several of the foreign markets. “If all other circumstances were equal, (says the ingenious and celebrated Mr. Bolton,) we might defy rivalry on the continent: but *labour cheaper, and the raw material cheaper*, there is no doubt but that in time they might rival us.”

To counteract this rivalry, is a matter of infinite importance; and Dr. Macnab's general ideas on the system to be pursued evince a liberal and philosophic mind. We must maintain our superiority in mining and manufactures; but how is this to be effected? By honesty and moderation, which form the best policy with nations as well as with individuals;—by bettering the condition of the poor, and thus preventing emigration;—by changing the system of taxation, and particularly by considering the tendency of taxes on the necessities of life;—by abolishing the poor rates;—and by a general amelioration of the people.

The author does not omit the argument in favour of the North country coal trade, that it is the great nursery of the British Navy;—a consideration which will ever have its weight with government.

Before he concludes, the Doctor returns to the charge respecting the agreement between the coal owners of the North. He contends that ‘coals, at and some time after peace, are

sold in London at a *lower rate*, than if the trade was suffered to *find its own level* ; and he condemns the measure of an inland supply by the canals, as 'carrying on the face of it the greatest *weakness, rashness, and danger*.'

We have thus given the outline or substance of this gentleman's pamphlets ; being convinced of the great national importance of the subjects to which they relate, and respecting which various prominent facts are here very ably stated. When the writer avows that he is generally interested in the mining trade, it may be also supposed that interest has had its share in the present question : but he solemnly declares the contrary to be the case ; for he affirms that, having considerable shares in three collieries near the Severn, '*had the measure of supplying the metropolis with coal from Staffordshire been practicable, to have embraced it would have been one of the most fortunate circumstances of my life*.'

We are persuaded that Dr. Macnab has delivered the honest convictions of his mind ; yet it is to be considered that his discussion affords but one view of the subject. If it be impolitic to tax coals, as being a necessary of life, it may not be unwise to extend their use by internal navigation as far as it may be possible. Canals will produce a change in the coal districts, because they must increase the demand for this article : but, if it be so abundant as it is stated to be, and miners increase with the increased demand, the evil may not take place to the extent apprehended by Dr. Macnab.

ART. IX. *A New System of Mineralogy*, in the Form of Catalogue, after the Manner of Baron Born's Systematic Catalogue of the Collection of Fossils of Mademoiselle Eléonore de Raab. By William Babington, M. D. Assistant Physician, and Lecturer in Chemistry, at Guy's Hospital. 4to. pp. 279. 15s. Boards. W. Phillips, &c. 1799.

THIS volume may be regarded as a continuation of Dr. Babington's Systematic Arrangement of Minerals, published in 1795, which was noticed in the 19th vol. of the M. R. N. S. p. 101. At that time, we expressed a wish that the Doctor would furnish the public with a descriptive catalogue of his valuable collection, and we are now happy in finding that wish completely gratified.

In a prefixed advertisement, the author observes that

'The work itself will shew of what assistance he has principally availed himself ; that in the distribution of his system into Classes, Orders, Genera, and Species, as founded on *chemical* and the varieties on *external* characters, he has nearly adopted the arrangement of Baron Born, in his catalogue of the Collection of Mademoiselle Eléonore

Éléonore de Raab; that Romé de Lisle has been his guide on the subject of Crystallization; that most of the genuine descriptions correspond with those of Widenmann and Emmerling, disciples of the celebrated Werner; and that he is chiefly indebted to Mr. Kirwan for what respects the chemical properties and analyses of the different species.

Salts form the first class in Dr. B.'s new system; and although this arrangement is different from that of Werner, Emmerling, and Widenmann, yet it appears on the whole to be the most eligible; since we are thus led, by natural transitions, from the class of saline bodies into that of earthy substances: at the beginning of which, Dr. B. has judiciously placed lime, strontian, baryt, and magnesia.—These approach the most nearly to the saline character, and are therefore very properly arranged immediately after the Salts.

The second class, or that of *Earths*, consists (according to Dr. B.) of eight which are considered as primitive earths, viz. lime, strontian, baryt, magnesia, alumine, silix, adamantine earth, and the earth of the jargon: but from these, the adamantine earth must be removed, for the reasons mentioned in p. 113; and it would be proper, in a future edition, to add glucine, aguttine, and yttria, which have been lately discovered. The acknowledged primitive earths, at this time, amount therefore to ten; of which seven are mentioned in the present work.

Class III. is that of *Metals*; and here again Dr. B. differs from other mineralogists. They have commonly placed the inflammable substances before the metals, but he has arranged the bitumens, &c. &c. in the fourth class.—We do not find the cause of this alteration explained; nor can we perceive any important reason for it. Indeed, it appears to be of little consequence whether the metals precede the inflammables, or the inflammables come before the metals.

The class of *Salts* is subdivided into two orders, the first of which comprehends the simple saline bodies, viz. acids and alkalis; while the second includes the compound salts formed by the union of the acids with potash, soda, and ammoniac:—so that these last-named substances, or bases, constitute the genera of the second order, which (as usual) are subdivided into species and varieties.

The class of *Earths* consists of three orders; the first is formed of homogeneous stones, &c. or at least of those which are commonly considered as such. The second contains the mixed substances, or compounds of the foregoing earths and stones, having their integrant parts so blended as not to be visibly distinct. The third is composed of aggregated stones,

in which the earths or stones of different kinds are in a state of visible mixture.

The different primitive earths form the genera of these three orders, and these genera are subdivided into species and varieties.

The class of *Metals* includes two orders; the first comprehending the ductile metals, viz. platina, gold, quicksilver, silver, lead, copper, iron, and tin; and the second consists of the brittle metals, or those which have been frequently and improperly called semi metals; these are bismuth, nickel, arsenic, cobalt, zinc, antimony, manganese, scheelium or tungsten, uranium, molybdena, sylvanite or tellurium, titanium, and chrome. Each of the foregoing metals naturally constitutes a distinct genus; and the combinations or ores form the species and varieties.

The fourth class contains the inflammable substances, which Dr. B. divides into three orders, viz. 1. aeriform, 2. liquid, and 3. solid. The first order includes only two species of hydrogen; namely, common hydrogen gas, and sulphurated hydrogen gas.

The second has three species. 1. Naptha; 2. Petroleum; and, 3. Barbadoes or mineral tar.

The third order, which is by much the most numerous, consists of five genera, viz. 1. solid bitumen; 2. amber, 3. mineral tallow, 4. sulphur, and 5. plumbago; which, like the genera of the other classes, are subdivided into species and varieties.

The volume concludes with the volcanic productions; and these, according to the Appendix to the Systematic Arrangement, are divided into three genera, 1. cinders, 2. lava, and 3. vitreous lavas.

Having stated the general plan of Dr. B.'s new system, we must refer to the work for the description of the species and varieties; but we shall observe that this part appears in general to be well executed; and that the specific gravities and analyses, which Dr. B. has selected and added, very much increase the utility and value of his book.

In the event of a future edition, some articles must necessarily be added; and some corrections also should be made. For example, as to the first point; the three newly discovered primitive earths, glucine, agustine, and yttria, should be added; as also the sulphurate of strontian, called celestine, from Pennsylvania; and that which is found near Bristol. The crystallized muriate of copper, from Peru, lately analyzed by Klaproth, may be added as a variety of the 7th species of copper ores.

With respect to corrections; we observe, in p. 215, that bismuth is marked *genus* 9, which is evidently a mistake; since, according

according to the system; it ought to be genus 1. of the second order;—and in page 26, a ludicrous error has occurred, by *Apatite* being printed for *Apatit*.

M. Klaproth discovered that the *jargon* consists principally of a peculiar earth, which he called *jargonian*, or *zirconia*; and he has since found that the *hyacinth*, or *jacinth*, is composed of ingredients similar to the *jargon*, but that the *jargonian* earth is present in a greater proportion.—Accordingly, in page 114 of Dr. Babington's work, we find that the *jargon* contains,

Jargon earth	-	-	68
Silex	-	-	31,5
Oxide of iron and of nickel	-	-	0,05

and in p. 69. we observe that the *hyacinth* contains

Jargon earth	-	-	70
Silex	-	-	27
Oxide of iron	-	-	5
Loss	-	-	4,5.

Why, then, has Dr. B. arranged the latter in page 69 as species 10 of the siliceous genus?

Elastic quartz, (p. 87,) or flexible sandstone, is a primitive quartzose grit, *visibly intermixed* with mica; we think, therefore, that it more properly belongs to order 3, or that of aggregated earths and stones.

Various stones are known by the name of *aventurine*: but that which is brought from the Cap de Gute in Spain (p. 91) is a ferruginous quartz, and not a *chalcedony*.

In page 97, crystallized horn-stone, or *petro silex*, is mentioned: but it is now scarcely doubted that all those, which are called crystallized horn-stones, are only casts formed in cavities left by the decomposition of crystals of other substances; and, if so, the term crystallized horn-stone should not be employed.—For the same reason, we have great doubts in respect to what is called crystallized *jasper* (p. 99); and we perceive that Dr. B. remarks that 'these are probably *secondary crystals*;' an expression, apparently taken from the German *after kristall*:—but both of these terms appear improper, if they be intended to convey an idea of a substance which has been moulded or cast.

The honey-stone, or *honingstein* (p. 273), is arranged as species 1. of the second genus, or that of *amber*: but the experiments lately made by Klaproth and Vauquelin prove, in a convincing manner, that this substance is composed principally of *alumine*; which, together with very minute portions of *lime* and *silex*, is combined with an acid *sui generis*, somewhat resembling the *oxalic acid*, and which M. Klaproth has

has denominated *acidum melliticum* *. The honey-stone, therefore, must in future be removed from the class of *inflammables*, and be arranged under the genus *alumine*.

We have now discharged our duty, in taking notice of those articles which appear to require some future alteration: but we must also remark that, considering the nature of the work, these are much fewer in number, and of less importance, than we might have expected; and we have no doubt that Dr. Babington's New System of Mineralogy will prove of great utility, and well calculated to promote the advancement of mineralogical knowledge.

ART. X. *Old Nick: a Satirical Story.* By the Author of A Piece of Family Biography. 12mo. 3 Vols. 10s. 6d. sewed. Murray and Highley. 1801.

IN the xxxth volume of our Review, (p. 370,) the former work of this author was introduced to the notice of our readers; and as we thought of that publication, so we may say of the present, that it is one of the few which repay the toil of perusal. With us, such performances possess additional recommendations: since, as they demand no violent exertions of our critical energies, we glide easily along their pages, and for a time give to the winds all the cares, the stern virtues, and the severity of our office. Yet, while we may thus seem to be remiss, we are preparing to act with the greatest propriety; for if we plainly state the impression which has been produced on us by a book like the present, — a book of entertainment, — we probably discharge our duty most fairly towards the author and the public.

On such a production as this, we are not inclined to be sedulously minute in our criticisms; nor are we disposed to give too great a prominence to any objections which may occur in our minds. It was intended to amuse rather than to instruct; it does not claim distinction for accurate narration of facts, nor for long processes of subtle reasonings; it neither aims at the nicety of metaphysical distinction, nor at the splendor of varied amplification; it attempts not the force of argumentative discussion, the pathetic appeals of eloquent morality, nor the luxuriant description of natural scenery. It has different claims; while it makes no appeal to our critical learning and perspicacity, it demands to have its merit decided on the proper grounds of judgment. "Were you pleased, or

* *Annales de Chimie*, Tome xxxvi. p. 203. and xxxvii. p. 88.

not, during the perusal of the story?" This is an appropriate question, and when we answer, "Yes," we seem to have decided on the work in a manner the most satisfactory:—but, if we be strictly interrogated concerning its excellencies and its faults, we shall then be compelled to ascend the chair of criticism; and begin to talk of plot, action, character, and sentiment, &c. &c.

The story is simple. Barclay Temple, the hero, is educated with the expectation of receiving a large patrimony, and is in consequence sent to Oxford; where he forms an acquaintance with Keppel Von Heim, a young man of great talents, but austere, irascible, revengeful, reserved, and mysterious. From Oxford, he is called to attend the death-bed of a repentant and agonized father; who, in schemes of speculation unknown to Barclay, had dissipated his abundant fortune. The circumstance, however, which weighs most heavily on the conscience of the dying father, was the seduction and subsequent desertion of a female who had borne him a son.—After having passed some time in London, Barclay finds his resources diminish, and is obliged to seek for employment. At length, his friend Keppel procures for him a situation in the house of Mr. Pawlet, a worthy clergyman, who is afflicted with a wife deeply versed in biblical learning, in science, and in philosophy; prone to dispute, and to exhibit her skill in contentious argumentation. Here, Barclay's occupation is to transcribe for this lady the texts and commentary of a Polyglott bible:—but Love, without which life and novels would be insipid, interrupts his serious labours. He had formerly seen, with feelings of the most lively emotion, an unknown beautiful female; and this fair *incognita* proves to be an inmate at Mr. Pawlet's house, and the intended wife of his friend Keppel. Unfortunately, gratitude and friendship yield to the impressions which the virtues and beauty of the lovely Penelope made upon his heart; and a mutual passion arises, of which Keppel is at length informed, with circumstances of exaggeration, by a French Abbé, the minister to the pleasures of a Mr. Buckle, who designs Penelope to be the victim of his unlawful passion.

Keppel, enraged at the supposed perfidy of his friend, hurries to Mr. Pawlet's rural dwelling, obtains the dismissal of Barclay, and, pursuing the gratification of his revengeful temper, employs bailiffs to arrest this calumniated young man. Barclay in consequence flies to London; where, after some trifling incidents, he is caught, and confined in the King's Bench Prison, from which he is liberated by the benevolence of the brother of Mr. Pawlet. On his way to the residence of Penelope, he stops at an inn; where, in the middle of the night, he is alarmed by a shriek from an

adjacent chamber; which he immediately enters, just in time to rescue his mistress from the embraces of Mr. Buckle. Mr. Pawlet then arrives, and announces that Penelope is the illegitimate daughter of Mr. Buckle. Shortly afterward, Keppel comes to the same inn, in pursuit of Penelope; and, furiously irritated against Barclay by the lying malice of the Abbé, who had ascribed her elopement to him, in order to screen Buckle, he grossly reproaches Barclay, challenges him, and wounds him: but, being soon informed of the rectitude and honour of the hero's conduct, he is smitten with remorse. He now reveals the story of his birth; Barclay discovers that he is his lost brother; and Keppel resigns the beautiful Penelope to her faithful Ulysses.

The story introduces many more characters than our short sketch of it has yet noticed:—Gregory, the faithful and affectionate servant of Barclay, continually in scrapes from his inordinate attachment to the female sex:—Mrs. George Pawlet, her son, and her daughter, extravagantly fond of Italian music;—a *chère amie* of the Honourable Mr. Buckle, licentious, unreserved, but endowed with strong natural sense;—&c. We shall give two or three extracts, in justice to the author, and to afford grounds for judging of the reasonableness of our critical decisions: beginning with a sketch of the benevolent clergyman and his learned wife:

‘No two people could be more opposite in their nature than the dean’s daughter and young Pawlet, who was about thirty, the same age as herself. He was about the middle size, and rather inclined to be lusty; of a cheerful, ruddy countenance, in which you might plainly read the characters of benevolence and kindness. I speak of him as I am told he was then, as I know he is now.—A more tender-hearted creature never existed. Nothing can ruffle him but injustice, oppression, or want of charity. Without professing to be a philosopher, he is so much so as to think nothing in this world worth quarrelling about. He is, in short, what St. Paul beautifully describes charity itself to be: He “suffers long, and is kind; envies not; boasts not of *himself*; is not puffed up; does not behave unseemly; seeks not his own; is not easily provoked; thinks no evil; rejoices not in iniquity, but rejoices in the truth; bears all things, believes all things, hopes all things, endures all things.”

‘Such was, and such is now at fifty, the man the dean chose for his daughter’s husband. Lord Clarendon observes*, that “clergymen understand the least and take the worst measure of human affairs of all mankind that can read and write;” and my friend was a great instance of the veracity of this observation. Old Pawlet no sooner opened the affair, and stated how happy it would make him, than his son, without considering a thousand other things that should be considered on these occasions, instantly agreed to it.

* In his Life.

' The period was not long before the indissoluble knot was tied, and Capid tucked such a *pair* in bed that night as he had scarcely ever seen, although his mother * is of old notorious for bringing opposites together. Ovid has no metamorphose so strange, sudden, and absurd, as Mrs. Pawlet made in the parsonage-house. My worthy friend, with a meekness of temper far surpassing that of Socrates, bore it all without repining, and even assisted at making alterations, and agreed to the adoption of many plans, which he could not but disapprove. So that there was no murmuring and no complaint: he was happy and contented. He submitted, and still submits, to his wife in every thing but one—in acts of benevolence and charity he is insuperably obstinate, and will suffer no controul.

' The mildness of his manners produced some effect upon her, and he in his turn performed a metamorphose, making her a little more tolerable and reasonable than she was. There is yet, however, full enough of the old woman in her character. To tell all her whims and vagaries would be an endless task; however I shall notice a few.

' Having gone the whole round of sciences in a very cursory way, she talks of all, and exceedingly loves to be called a LIVING ENCYCLOPEDIA. She is always reading or writing, let her be wherever she will. Takes snuff immoderately. Talks with precision. Never suffers any one to pronounce or use a word improperly. Always explains the figures she uses, and reasons logically, that is, tediously and foolishly. Has dipped in Euclid. Is full of solids, angles, parallelograms, logarithms, &c. The same of geography. Never hears of a place but she tells you on which side of the equator it is, north or south, and in what latitude and longitude. In like manner of astronomy. Then there being no apothecary in the village, she has studied the whole *materia medica* for the benefit of the family. Can read a physician's prescription as well as an apothecary. She physics all the servants to such a degree, on the slightest indisposition, that, when they are really ill, they sham well for fear of being dosed.

' She has her own library, which is crowded with books of all descriptions, but principally in the dead languages. She prides herself on the correctness of a barometer she hangs out of the window, which, by the bye, is none of the best. However, if it indicates that the weather is fair, she will contend it is so, although it should rain in torrents. Often too, when people are sick, she will give them a thousand reasons why they should not be sick, and make a man's head ache ten times more than it did, in proving to him that there is no cause for its aching.

' They sleep together; and I verily believe that, unless it is when they do sleep together, that is, at the same time, Mr Pawlet gets but a small share of it. In the middle of the room, much against his inclination, she suspends a large, glaring lamp, which burns throughout the night. By the side of the bed are placed a table,

* " With sportive cruelty she binds,
Unequal forms, unequal minds."

Hor. Carm. lib. i. od. 33.

pens, ink, and paper, and constantly in the dead of night, if a thought strikes her, she rises to put it down. And frequently she wakes the parson from his peaceful slumber, to ask him his opinion about passages he knows as little of as the man in the moon.*

In Vol. II. p. 27, a conversation at dinner between Mr. and Mrs. Pawlet is, we think, well imagined and related :

‘ It would be vain, and tedious, to relate all the subjects of controversy which were entered into, to please Mrs. Pawlet; I shall therefore omit several, and come to one, which, in the end, even ruffled the temper of the good-natured clergyman. It was this,—the parson contended for a *vacuum*, which always incensed his wife, who was a desperate stickler for a *plenum*.

“ A Greek writer,” said she, “ calls substance *τὸ τίς*, something; and void, *τὸ μὴ τίς*, nothing. Now, I am for the *τὸ τίς*; I am for something. I am with the Aristotelians; they say that nature abhors a *vacuum*,—so I do.”

‘ However mild the disposition of a man may be, there is always a spark of ambition in his heart, which will shew itself, whenever it finds an opportunity. Mr. Pawlet suffered himself to be defeated, in many instances, to please the vanity of his wife; but having the best of the argument, in the present, and being allowed, without offence, to support it, he determined to display his powers before our hero. He, very properly, and justly insisted, that there could be no motion without a void, and went on, establishing his position with great firmness and truth.

‘ Mrs. Pawlet, on the other hand, arguing, with thundering volubility, from Hobbes and Descartes, so confounded and bewildered the subject, that the parson, unable to go any further, and displeased at not being able to convince her* that he was in the right, exclaimed, “ Why will women meddle with philosophy ?”

“ And why not, pray ?” cried Mrs. Pawlet; “ what were women born for, then ?”

“ Why, according to St. Paul,” said the parson, “ *to marry, bear children, and guide the house.*”

“ Granting this,” replied Mrs. Pawlet, a little angrily, “ I should be glad to learn, how knowledge is incompatible with her situation in life. I should like to be told, why chemistry, geography, algebra, languages, and the whole circle of arts and sciences, are not as becoming in her, as in a man.”

“ I do not say,” rejoined the parson; “ that they are entirely unbecoming, but, I think, a very little of them will serve her purpose. In my opinion, a woman’s knowledge of chemistry should

* * This is precisely my case. I am never angry in a controversy, when my opponent clearly explains my error. But when I have an idea of what is right, but cannot satisfy my antagonist, and he persists in the contest, presuming on my hesitation, and striking me, as it were, with reeds, because I cannot come at my arms; then I fret.

“ That’s an honest trait.”

• Oh ! trust me, I’ll tell you nothing bad of myself.”

extend no farther than to the melting of butter, her geography to a thorough acquaintance with every hole and corner in the house, her algebra to keeping a correct account of the expences of the family; and as for tongues, Heaven knows that one is enough in all conscience, and the less use she makes of that the better."

"During this speech, Mrs. Pawlet was much agitated; and scarcely able to conceal her anger, she said, "Ah! it is very well, Mr. Pawlet, but I smile at your impotency!"

"My dear," replied he, "you should rather be sorry for it."

"You are defeated," continued she, "and, in revenge, you descend to abuse. I have long found you deaf to instruction. You may be a man of some ordinary sense, and I believe you to possess the properties of *verity* and *bonity*, but I can say no more for you. I have endeavoured, by constant communication, and instruction, to augment your intellectual fund; but, alas! I find the truth of the scholastic axiom, *Whatever is received, is received according to the capacity of the recipient*; a gallon may pour out its liquor into a pint bottle, but the bottle can receive no more than a pint. I have done all that can be done, and may as well attempt to penetrate the rind of nature, and open a way to eternity, as to add to your knowledge."

"Here Mrs. Pawlet looked at Barclay, with strong symptoms of exultation; and the parson, thinking he had been too harsh, rose, and said, "Come, my dear, let us be friends again. You forced me to this opposition; and must not blame me for what I have advanced. Be composed. I'm sure you are in the right." Saying this, he gave her a kiss to atone for his fault; a luxury Barclay did not envy him.

"Well," said Mrs. Pawlet, rising, "now, I think it is time for me to retire, but do not imagine that I retire for the same reason that other women do, namely, to allow you a greater freedom of speech. No, truly; for I affirm, that there is nothing, however free, which a philosophical mind may not attend to. What are words, or things, to me? The philosopher's mistress is Truth, and she is naked."

"The parson and our hero looked at each other with a smile.

"Yes," continued she, "and wherever he meets her, he embraces her with rapture, for in her alone exists all that is divinely beautiful."

"Barclay sighed.

"You sigh, Mr. Temple," said she, "but I do not wonder at it, for I talk of your mistress."

"You do, you do, indeed!" cried Barclay, with a warmth that was very diversely understood by Mrs. Pawlet and himself; "she is, in truth divinely beautiful, but how difficult is it to acquire her!"

"Right," rejoined Mrs. Pawlet; "but to explain my motive for retiring. I hold it to be classically proper, and I gather that opinion from the following passage in Plutarch. He says, in his Banquet of the Seven Sages, that a wise man, *Και οντος η Φαυλος επι τας νυμφας καταφυγει* *, if he finds the wine bad, has recourse to the nymphs. Some, I know, contend, that the word *nymphs* means water. But I rather

* Xylander's edition of Plutarch's Var. Op. p. 90:

give it this interpretation. *If a wise man finds the wine bad, he retires to the ladies.* It is of consequence admitted, that if he retires to the ladies, the ladies must have previously withdrawn; and, supported by this authority, I always deem it decent to retire." Uttering these words, she left the room, apparently in the highest degree satisfied with the display she had made of her talents and erudition.

'Being gone, Mr. Pawlet drew his chair closer to our hero's, and, inviting him to fill his glass, said he was heartily glad to see him, and drank to their better acquaintance. Barclay pledged him with great sincerity.

"You must think," continued Mr. Pawlet, falling back in his chair, "you must think my wife a very strange woman, from what you have seen and heard of her. Indeed, she is so. The learning her father, the dean, compelled her to obtain, has been too much for her. In a stronger head * it might have been of great service, but in hers it only tends to make her wild and eccentric. She is always doing some out-of-the-way thing; but, indeed, I believe she has a good heart, and would not, willingly, do any one harm."

"I cannot doubt it," replied Barclay.

"But still," said the parson, "she is often very near doing some, as, for instance, this morning,—and the other day, what do you think she did? The man who takes care of my horses was suddenly seized with a sickness, either through drinking more than he was aware of, when dry, or was deceived in the quality of the liquor he drank. How that was I cannot say, but Mrs. Pawlet soon heard from the gardener that he was in this condition. The gardener informed against his fellow-servant, because, I understand, they are not upon the best terms, and this is owing to a scheme of my wife's, which I confess I do not much approve. She tells me, that by creating feuds among the servants, she imitates Cato †, who, she says, wisely adopted this method, as a surety against their concluding together to cheat him. Well, the instant my dear knew that the groom was, to use the poet's phrase, for the sake of decency, "pouring his throat ‡" in the kitchen, she visited him, and presently hit upon this remedy. She had read, in Pliny, "That wine, with pomegranate juice, stops vomiting §." Procuring, therefore, a bottle of Madeira, and squeezing a little pomegranate juice into it, she presented it to him, glass after glass. The honest fellow took the prescription very kindly, until he had finished the bottle, which, as you may easily conceive, only made bad worse. Good soul! I am sure she meant well; but the poor man was, after all, obliged to be carried to bed in a deplorable state of intoxication and sickness."

* The Arabian observation is, that whenever learning is introduced into a brain whose texture is not adapted to receive it, a fermentation ensues, till the whole is exhausted.

† Pref. Epist. to L. B. esq. p. 11.^b

‡ Plutarch's Life of Cato, the Censor.

§ "The attic warbler pour's his dulcet throat."—POPE OR GRAY.

§ Vomitiones sistit eum succo granati.

PLINY, Nat. Hist. b. xx. c. 14.^a

We had marked for insertion some additional humorous passages, descriptive of this learned lady: but perhaps our readers may wish to be introduced to others of the personages who figure in these volumes. We shall therefore present them with a few sketches of honest Gregory, the affectionate servant of Barclay Temple: who, at the period in which he is now to appear, is attending his master in chambers in London, just after the decease of Mr. Temple, senior.

‘ Our friend Gregory was now between forty and fifty; he was stout and rather short, his height not exceeding five feet. Of his face, I can only say, that, excepting a nose of no common promise, it had nothing to distinguish it from the vulgar herd of faces, innocent of all meaning. To describe him, in a word, he held the same rank among nature’s works as hardware among the potters.

‘ Of the honesty of his mind and disposition too much cannot be said. His outside was rough like the shell of the cocoa nut, and like the cocoa, his heart contained abundance of sweet milk—the sweet milk of human kindness.

“ Well but his vices, sir,—his swearing, and his fondness of—what, sir? What was he fond of?” For shame, ma’am, don’t ask me that.

“ You promised to tell, sir, and you know, that a woman’s curiosity is——” As restless as St. Vitus’s dance! therefore to give you ease, I will tell you. Now, O Goddess of Chastity! send, O send thy sylphs to influence my words and guide my pen! My invocation being at an end, be pleased, madam (for I swear I will not speak out loud), be pleased to lend me your ear—Pooh, that won’t do—Do just move your wig a little on one side—there, that’ll do. Gregory, madam, was, what I still hope you are not, excessively fond of love! “ Pshaw, is that all? And pray, sir, why should not I be fond of love?”

‘ Zounds, ma’am, he was as amorous as a goat!—“ Poor fellow, well, I’m sure he’s more to be pitied than blamed.”

‘ Madam, I honour your feelings, but I shall not venture to remain in private with you any longer!’—

‘ As any figure with a bald head is, to a publican, the sign of the Marquis of Granby, so was any thing in a petticoat an angel in the eyes of Gregory. That being the case, he must undoubtedly have possessed much of the virtue of Shadrach, Meshach, and Abednego, to have lived in this great town so long as he did, without being entirely consumed.

‘ Though fortunate in many respects, he was not not always successful in his amours. Being sent one day by Barclay, with some trifling message, to Keppel’s chambers, he found there a pretty little wench who had lately been hired. The moment he beheld her, he fell desperately in love. “ In love?” you cry. Yes, in love, if South’s definition of love be just. “ It is,” says he, “ all the powers, vigour, and faculties of the soul, abridged into one inclination. The whole man wrapt up in one desire.” Such was the case with Gregory. South then adds, “ That the soul may sooner leave

off to subsist, than to love; and, like a vine, it withers and dies, if it has nothing to embrace." Gregory could never submit to that; he therefore began to embrace the nymph with true satiric warmth. Having previously inquired whether her master was at home, and learning that he was not, he shut the door, and without any further ceremony, as Helle was carried by the ram, he bore her into the bed-chamber. Here, madam, such a conflict ensued as you can have no idea of.

'Alas! poor Gregory, to attack thee in such a situation! Madam, she beat him with a brush, until he was obliged to cry for quarter. She then opened the door, and he was glad to sneak away disgraced and discomfited. Such, indeed, is commonly the end of most love affairs!

'But to use the words of a noble lord, "The gallant who goes about to open the trenches in this manner, will generally" (like Gregory) "be soon obliged to raise the siege *."

'Keppel's maid having never seen Gregory before, and he thinking it full as well, after what had happened, to retire without delivering his message, she could not identify the person who had been there, and, during his absence, committed such an alarming outrage on her virtue. However, as she had fought such a good fight, she was resolved not to lose all the advantage her reputation might derive from it; she therefore described every thing to her master on his return, as minutely as she was able. But she dwelt so much on her own *spotless virtue*, and gave such a confused account of the ravisher, that none but Keppel, who, knowing Gregory's propensity, shrewdly suspected it was him, could have gathered any thing from it.

'Telling Barclay the circumstance next day, without intimating his suspicions, our hero exclaimed, before he had half finished, "Aa I live, 'twas Gregory! the scoundrel!"

"I guessed as much," cried Keppel, "but we may be both wrong—I am to dine with you to day, let us devise some plan to sound him."

'This being agreed upon, at dinner, while Gregory was waiting, Barclay said in a careless manner, "Did you go to my friend's with that message yesterday, Gregory?"

"Message?" he replied, in a way as if he had forgotten it.

"Yes," added the other, "the message that I told you to deliver in the course of the evening."

"Ay," cried Gregory, not wishing to tell a lie, and catching at the word *deliver*, "I recollect now—no sir, I did not deliver it."

'Keppel seeing they were baffled here, went on thus, addressing himself to Barclay.

"Apropos of yesterday—The strangest thing happened whilst I was out, that you ever heard. A man, I know not who, called at my chambers, and being told that I was not at home, he rushed in, and ravished my maid servant."

'Gregory kept rubbing the glasses, as if he meant to rub them to pieces.

* Lord Mulgrave, on the bill to prevent the intermarriage of the parties concerned. April, 1800.

"Bless me," cried Barclay, with affected surprise, "pray, what time of the day was it?"

"Some time in the evening," replied the other.

"Well," said our hero, looking steadfastly at Gregory, whose confusion evidently betrayed his guilt, "I am glad, *sir*, to understand that you were not there last night."

"When we say *sir*, to a gentleman, we mean to employ an honourable term; but, when we apply it to a servant, as—"So, *sir*," or as it is used above, it is merely an abbreviation of *sir-rab*. Gregory felt the full force of the word, and knew his master's suspicions; but not caring to acknowledge the fact, he bowed respectfully to conceal his blushes, and then turned round as if he had something to do at the sideboard.

Keppel had made a little embellishment, but finding that of no effect, proceeded to magnify still further.

"Now," said he to Barclay, "I would have forgiven the fellow for any thing that he did with the girl, since his passions might have run away with him, but I can never pardon his descending to steal the silver candlestick."

"If I did, I'll be d—d!" cried Gregory, turning hastily round; "as I hope for mercy, I stole nothing!"

Keppel and Barclay could not refrain from bursting out into a fit of laughter, during which, Gregory, conscious how his indignation at being accused of theft had betrayed him, ran out of the room.

Such are some of the parts of a work, which with us has cheered the toil and smoothed the brow of criticism. It is not, however, without its faults:—its sprightliness sometimes borders on boyish playfulness and awkward gaiety; the display of learning may occasionally appear as the pomp of pedantry; and the chaste rules of decorum are not unfrequently transgressed, though the author seldom excites passion by luxurious description, and never wantonly offends by obtrusive obscenity. "*Take it for all in all, we do not often look upon its like,*" in this department of literature; and we hope that the commendation, which we freely bestow on the author, will stimulate him to a salutary examination and a vigorous exertion of the talents with which he is endowed.

ART. XI. *Philosophical Transactions of the Royal Society of London, for the Year 1800. Part III.* 4to. 17s. Boards. Elmsly.

THIS concluding part of the Transactions of the Royal Society, for the last year, is occupied by only two papers: but each of them is very long, the two together forming a volume of 300 pages. The first is intitled

Experiments on the Solar and on the Terrestrial Rays that occasion Heat; with a Comparative View of the Laws to which Light
and

and Heat, or rather the Rays which occasion them, are subject, in order to determine whether they are the same, or different. Part II. By William Herschel, LL. D. F. R. S.—In p. 393 of our Review for April last, we gave an account of Dr. Herschel's experiments and reasonings relative to what he views as a new discovery in natural philosophy. The inference deduced in his former paper amounts to this; that, in all cases of heat, whether derived from the sun or from candent terrestrial substances, there are rays which cause the heat independently of light, and which are subject to certain laws of refraction and reflection. The same subject is pursued at great length in this second part of his memoir, and the investigation is not yet at an end; the special object of the paper before us being only to point out certain striking differences between the rays which cause light, and those which produce heat, preparatory to the discussion of the question,—“Are light and heat caused by the same or by different rays?”

The first section in the present paper treats on the *Different Refrangibility of the Rays of Heat*.—Having noticed the similarity between the rays which cause light and those which cause heat, Dr. H. points out a remarkable difference, consisting in this; that, when rays are dispersed by a prism, those which occasion illumination, and the heat-making rays, neither agree in their mean refrangibility nor in the situation of their maxima. This position is illustrated by a figure consisting of two curves, of which the respective ordinates are drawn proportional to the powers of the rays to cause illumination and heat.

The 21st Experiment is intended to prove that the *Sines of Refraction of the heat-making Rays are in a constant Ratio to the Sines of Incidence*; but the inference made by Dr. H., at the conclusion, we either do not understand, or, if we understand it, we cannot assent to it.

Experiment 22. *Correction of the different Refrangibility of Heat, by contrary Refraction in different Mediums*.—As this is a curious experiment, the account of it deserves to be quoted:

‘I took three prisms; one of crown glass, having an angle of 29 degrees; another of flint glass, with an angle of 24; and a third of crown glass, with an angle of 10 degrees. These being put together, as they are placed when experiments of achromatic refractions are to be made, I found that they gave a spectrum nearly without colour. The composition seemed to be rather a little over adjusted; there being a very faint tinge of red on the most refracted side, and of violet on the least refracted margin. I examined both extremes by two thermometers; keeping No. 3 as a standard, while No. 2 was applied for the discovery of invisible rays; but I found no heat on either side. After this, I placed No. 2 in the middle of the colourless illumination; and in a little time it rose two degrees, while

No. 3 still remained unaltered at some small distance from the spectrum. This quantity was full as much as I could expect, considering the heat that must have been intercepted by three prisms. Thus then it appears, that the different refrangibility of heat, as well as that of light, admits of prismatic correction. And we may add, that this experiment also tends to the establishment of the contents of the preceding one; for the refrangibility of heat rays could not be thus corrected, were the sines of refraction not in a constant ratio to those of incidence.'

24th Experiment. In Burning-Glasses, the Focus of the Rays of Heat is different from the Focus of the Rays of Light.—From this experiment, it appears that the focus of heat is farther removed from the speculum than the focus of illumination.

Section V, *Transmission of heat-making Rays.*—Here commences the investigation of the transmission of heat through diaphanous substances. After a description of the machinery invented for this transmission, Dr. Herschel proceeds to treat of *the Transmission of Heat through colourless Substances*, and gives the results of sixty experiments made with various kinds of transparent bodies. Part of the transparent substance was placed over a hole, directly under which was the bulb of a thermometer; while the bulb of another thermometer was placed parallel to that of the former, in such a manner that the unobstructed rays of the sun, and the transmitted rays, fell precisely in the same manner on the bulbs of the two thermometers;—the action of the light and heat was made to last five minutes.

After having enumerated the experiments made with the sun, Dr. Herschel describes the machinery invented by him for *transmitting Flame-Heat*, and states the results of the experiments performed with this view.—In page 476, we have the description of machinery for *transmitting Fire-Heat*; and subjoined are experiments made with various substances. Concerning *the Transmission of invisible terrestrial Heat*, the Dr. says:

'This is perhaps the most extensive and most interesting of all the articles we have to investigate. Dark heat is with us the most common of all; and its passage from one body into another, is what it highly concerns us to trace out. The slightest change of temperature denotes the motion of invisible heat; and if we could be fully informed about the method of its transmission, much light would be thrown on what now still remains a mysterious subject. It must be remembered, that in the following experiments, I only mean to point out the transmission of such dark heat as I have before proved to consist of rays, without inquiring whether there be any other than such existing.'

He then proceeds to describe his apparatus, which would not be readily comprehended without the plate.

Sect. VI. *On the scattering of Solar Heat*;—a branch of inquiry, Dr. H. says, which deserves a fuller investigation than he has given. This scattering of heat he attributes to the reflection of it from the rough surfaces of bodies, and consequently it takes place in all bodies. In order to compare the effect of rough surfaces on heat with their effect on light, he made a variety of experiments, and here describes the apparatus with which they were performed:

‘ From these experiments (he says) it seems to be evident, that in scattering heat, the colour of the object is out of the question; or, at least, that it is no otherwise concerned than as far as it may influence the texture of the surface of bodies. For here we find that pale-green, which is brighter, or scatters more light, than dark-green, yet scatters less heat. Even black, so generally known to scatter but little light, scatters much heat. But, in order to put this surmise to a fairer trial, I made the following experiments with my new machine.’

By subsequent experiments, he arrived at this result; that colour has no concern in the laws relating to the scattering of heat.

Sect. VII. *Whether Light and Heat be occasioned by the same or by different Rays*.—Previously to the close discussion of this question, Dr. H. says that he may strictly infer from foregoing experiments, that there are rays of heat both solar and terrestrial, not endowed with a power of rendering objects visible.

‘ It has also been proved, (he remarks,) by the whole tenour of our prismatic experiments, that this invisible heat is continued, from the beginning of the least refrangible rays towards the most refrangible ones, in a series of uninterrupted gradation, from a gentle beginning to a certain maximum; and that it afterwards declines, as uniformly, to a vanishing state. These phenomena have been ascertained by an instrument, which, figuratively speaking, we may call blind, and which, therefore, could give us no information about light: yet, by its faithful report, the thermometer, which is the instrument alluded to, can leave no doubt about the existence of the different degrees of heat in the prismatic spectrum.

† This consideration, as has been observed, must alter the form of our proposed inquiry; for the question being thus at least partly decided, since it is ascertained that we have rays of heat which give no light, it can only become a subject of inquiry, whether some of these heat-making rays may not have a power of rendering objects visible, superadded to their now already established power of heating bodies.

‘ This being the case, it is evident that the *onus probandi* ought to lie with those who are willing to establish such an hypothesis; for it does not appear that nature is in the habit of using one and the same mechanism with any two of our senses; witness the vibrations of air that make sound; the effluvia that occasion smells; the particles

particles that produce taste; the resistance or repulsive powers that effect the touch: all these are evidently suited to their respective organs of sense. Are we then here, on the contrary, to suppose that the same mechanism should be the cause of such different sensations, as the delicate perceptions of vision, and the very grossest of all affections, which are common to the coarsest parts of our bodies, when exposed to heat?

But, let us see what light may now be obtained from the several articles that have been discussed in this paper. It has been shewn, that the effect of heat and of illumination may be represented by the two united spectra, which we have given*. Now, when these are compared, it appears that those who would have the rays of heat also to do the office of light, must be obliged to maintain the following arbitrary and revolting positions; namely, that a set of rays conveying heat, should all at once, in a certain part of the spectrum, begin to give a small degree of light; that this newly acquired power of illumination should increase, while the power of heating is on the decline; that when the illuminating principle is come to a maximum, it should, in its turn, also decline very rapidly, and vanish at the same time with the power of heating. How can effects that are so opposite be ascribed to the same cause? first of all, heat without light; next to this, decreasing heat, but increasing light; then again, decreasing heat and decreasing light. What modification can we suppose to be superadded to the heat-making power, that will produce such inconsistent results?

We must not omit to mention another difference between light and heat, which may be gathered from the same article of the refrangibility of heat-making rays. It is, that though light and heat are both refrangible, the ratio of the sines of incidence and refraction of the mean rays is not the same in both. Heat is evidently less refrangible than light; whether we take a mean refrangible ray of each, or, which I believe to be the better way of proceeding, whether we take the maximum of heat and light separately. This appears, not only from the view we have taken of the two spectra already mentioned, but more evidently from the 23d experiment, by which we find, that heat cannot be collected by a lens, to the same focus where light is gathered together.

A preceding section, No. V., affords the author ample means of pointing out a striking difference between the two principles of heat and light.—The quantities of light and heat intercepted by colourless substances are represented in the subjoined table:

TABLE I.

Bluish-white glass stops	250	rays of heat, and	86	of light.
White flint glass	91	- - -	34	- -
Greenish crown glass	259	- - -	203	- -
Coach glass	214	- - -	168	- -
Iceland crystal	244	- - -	150	- -
Talc	139	- - -	90	- -
Calcinable talc	184	- - -	288	- -

* See page 439, and Plate XX.

From the inspection of this table, it appears that no sort of regularity takes place between the two kinds of rays stopped; so that light and heat seem to be entirely unconnected. To the first table, which we have given, Dr. H. adds three others relating to the transmission of the rays of heat and light through different substances. He then particularly examines these tables, in order to ascertain whether light and heat can be occasioned by the same rays or not; and he thinks that the determination of the question will be obtained, if it be shewn that the stopping of one sort of rays does not necessarily stop the other. Now it appears (he observes) from his tables, that bluish white and flint glasses stop nearly as much heat as light; whereas crown glass stops one-fourth more of the former than of the latter;—and by another experiment, we learn that the former glasses transmit nearly all the invisible rays of solar heat, whereas crown glass stops a considerable number of them. The most forcible arguments in favour of the separation of the two principles, the Doctor thinks, may be drawn from the second table: since a dark red glass, it there appears, stops 606 rays of heat, and 999.8 of light. Now,

‘As only one ray in 5000 can make its way through this glass, it is evident, that if the rays of light be also those of heat, there can hardly come any heat through it but what must be occasioned by rays that are invisible. It will therefore become a question to be examined, how many of this sort we can admit, if we proceed on a supposition that heat consists of light, as far as that will go. Now this, we find, has already been ascertained, in a great measure, by our 13th, 17th, and 18th experiments. In the 13th, one hundred and twenty degrees of heat were given to a thermometer, in one minute, by the rays which accompany the coloured part of the spectrum. In the 17th experiment, on the contrary, we find only 45 degrees of heat communicated to the same thermometer, in the same time, by the invisible rays of the same spectrum. If we would be more scrupulous, the 18th experiment limits the heat from rays totally invisible even to 21 degrees; but, in order to make every possible allowance, let the proportion be the most favourable one of 120 to 45, which, reduced to mean rays of heat, will give 727 of them visible, and 273 invisible, to make up our thousand.’

‘To return to the experiment; if the total number of rays of heat ascribed to light should accordingly be rated at 727, it is evident, from the stoppage of light of this glass, that 726 rays of heat at least must also be intercepted: and, in consequence of the 153d experiment, which shews that our glass opposes no obstruction to any of the invisible rays, we shall require no more. But, by our present experiment, this glass stops only 606 rays of heat; so that 120 of them will remain unaccounted for. Now, the moment we give up the hypothesis that heat is occasioned by the rays of light, the difficulty becomes fully resolved by our 100th experiment, which shews that full three-tenths of the rays that have the refrangibility of the red are actually transmitted.’

In order to try the force of his arguments, Dr. H. states 'all possible objections' against his own opinion. He examines several hypotheses, by which the rays of light are admitted to be the same as those of heat; and he shews that in all such hypotheses, there must be some deficiency of explanation; whence it is to be concluded that *visible* rays of heat cannot be admitted in any proportion whatever.

Table V. p. 520. Here Dr. H. takes into consideration a more direct proof than any which can be drawn from the prismatic experiments. He observes that, since there is heat of the same variety in refrangibility as the different colours, the question may be reduced to this point: "Is the heat, which has the refrangibility of red rays, occasioned by the light of these rays?" He then says that want of room and leisure obliges him to anticipate a series of 'highly interesting observations' which he has made, but which he cannot now detail; whence this fact is established, that red glass does not stop red rays: whereas it appears that, in regard to heat, red glass stops 692 out of 1000.

' Here then we have a direct and simple proof, in the case of the red glass, that the rays of light are transmitted, while those of heat are stopped, and that thus they have nothing in common but a certain equal degree of refrangibility, which, by the power of the glass, must occasion them to be thrown together into the place which is pointed out to us by the visibility of the rays of light.

' The manifest use of the union of these rays, arising from their equal refrangibility, will be explained at a future opportunity, when I may perhaps throw out several hints that have already occurred to me, where the contents of this paper may be applied to the useful purposes of life.

' There still remains a general argument, that heat and light are occasioned by different rays, which ought not to be omitted. This, on account of the contracted state in which the experiments have been given, cannot appear from my paper; but, by an inspection of them at full length, it is proved, that the stoppage of solar heat, setting aside little irregularities, to which all observations are liable, has constantly been greater in the first, second, or third minute, than in the fourth and fifth; or, more accurately, nearer the beginning of the five minutes, than about the end of them. Now this does not happen in the transmission of light, which, as far as we know, is instantaneous; at least a failure in the brightness of an object, when first we look at it through a glass, amounting to one, two, or even three minutes, could not possibly have escaped our observation. This seems to suggest to us, that the law by which heat is transmitted, is different from that which directs the passage of light; and, in that case, it must become an irrefragable argument of the difference of the rays which occasion them.'

From experiments made concerning the transmission of rays with glasses having one side rough, or covered with emery, it is

is inferred that the phænomena cannot be explained, except on this hypothesis; that the rays of light and heat are essentially or in their nature different.

Dr. H. next proceeds to a review of the phænomena attending the *Transmission of terrestrial Heat*; and for this purpose he has constructed a table which succinctly states the results of many experiments. The first point established is the existence of terrestrial heat in the flame of a candle; *i. e.* that there is an issuing heat not caused by visible rays.

We now come to a *Table of the Transmission of terrestrial scattered Light through various Substances: with a short Account of the Method by which the Results contained in this Table have been obtained.*—This account comprehends the description of the machinery invented by the author, and founded on the principles admitted by M. Bouguer in his *Treatise on Optics*: but the machinery cannot be adequately described without the engravings.

Dr. Herschel proposes to prosecute his researches; and their results are to be published in a future number of the *Transactions*.

The second paper in this volume is

An Account of the Trigonometrical Survey, carried on in the Years 1797, 1798, and 1799, by Order of Marquis Cornwallis, Master General of the Ordnance. By Captain William Mudge, of the Royal Artillery, F.R.S.—For the general object of this paper, and its arrangement, we quote the author's own words:

‘The contents of the work now meeting the public eye, are important and numerous: I have divided it into sections. The first contains the calculations of the sides of the principal and secondary triangles extended over the country in 1797, 1798, and 1799; together with an account of the measurement of a new base line on Sedgemoor, and a short historical narrative of each year's operation. The second section contains the computed latitudes and longitudes of those places, on the western coast, intersected in 1795 and 1796, and also such others, since determined, as lie conveniently situated to the newly-observed meridians. This section also contains the directions of those meridians; one on Black Down, in Dorsetshire; another on Butterton Hill, in Devonshire; and another on St. Agnes Beacon, in Cornwall. Among the contents are likewise to be numbered the bearings, distances, &c. of the stations and intersected objects, from the parallels and meridians.

‘The third and last section contains the triangles which have been carried over Essex, the western part of Kent, and portions of the counties joining the former, Suffolk and Hertfordshire. It is with satisfaction I am enabled to state, that Mr. Gardner, the chief draftsman, with his assistants, has almost completed the survey of this extensive tract, which, no doubt, like the map of Kent, will be given to

to the public : the materials for these different surveys are ample, and will be found in this section, which concludes with the altitudes of the stations and mean refractions.

The original associate of Captain Mudge was Mr. Isaac Dalby ; who, we now learn, has been obliged to abandon his share in it, by the fatigues incident to the undertaking : his place is supplied by Mr. Simon Woolcot.

Section 1st contains *Particulars relative to the Operations of 1797.* Capt. Mudge gives a brief account of the places chosen for stations, and examined by the instrument ; and he observes that the principal object, proposed to be accomplished in this year, was the determination of meridians at proper stations, in order to afford the necessary data for ascertaining the latitudes and longitudes of places intersected in the surveys of 1795 and 1796.

After the operations on Salisbury plain, Capt. Mudge had caused inquiry to be made for a spot on which a third base might be measured. With little prospect of success, he and Mr. Dalby passed over into South Wales, to examine the level between the new Passage House and Cardigan : but they soon abandoned all hope of finding a base right line of sufficient length, under circumstances fit to be measured ; and therefore they sought for a place whence two right lines, including an angle, might be drawn and measured ; of such a length, and so inclined, that the third side of the triangle might be five miles in length. This search, however, was also fruitless ; and necessity then compelled them to direct their thoughts towards the measurement of a base on King's Sedgemoor.

II. *Account of Angles taken in the year 1797.*

III. *Particulars relating to the Operations of the year 1798.*— In the beginning of 1798, the first operation performed was the trigonometrical survey of the counties adjacent to the northern and southern shores of the Thames in Kent, and afterward in Essex. The chief draftsmen and surveyors belonging to the drawing room in the Tower attended, since it was for their immediate service that the survey was there renewed ; — the Master General wishing to have ample materials for the map of those parts.

After having stated what were the first operations in this year, Captain M. proceeds to the description of the measurement of a base at King's Sedgemoor. This measurement was attended with considerable difficulties, on account of several intersecting ditches, by which various allotments of land, conformably to an act of inclosure passed about that time, were set off. The surveyors were furnished, on this occasion, with a new chain 50 feet in length, made by Mr. Ramsden.—Among
other

other particulars mentioned, is one descriptive of the method adopted for measuring an off-set; which operation it became necessary to perform, in consequence of the direct line of the intended measurement having been crossed by a ditch dug in consequence of the Inclosure Bill.—The operations of 1798 terminated in a diligent search for some spot in Cornwall, on which it might be possible to measure a base line of 2 or 3 miles in length: but unfortunately this search also was unsuccessful.

IV. *Angles taken in the year 1798.*

V. *Particulars relative to the Operations of 1799.*—In order to carry on these operations on a large scale, an excellent theodolite belonging to the Royal Society was borrowed by Captain Mudge.

VI. *Angles taken in the year 1799.*

VII. *Situation of the Stations.*

VIII. *Particulars relating to the Base on King's Sedgemoor; and the Reduction of that Base.*

IX. *Table of the Measurement of the Base of Verification on King's Sedgemoor.*

X. *Reduction of the Base.*

XI. *Calculation of the Sides of certain principal Triangles in Cornwall and Devonshire.*

XII. *Calculation of the Side of a Set of principal Triangles, carried on from the Side which joins the Stations on Beacon Hill, near Amesbury, and Wingreen Hill near Shaftsbury, towards the Base of Verification on King's Sedgemoor.*

XIII. *Calculation of the Sides of certain principal Triangles, carried on from the Side of Bagsbot Heath and Highbclere, towards the North.*

XIV. *Triangles for connecting the Series carried on from Scutchamffy Barrow and White Horse Hill, in Berkshire, into Buckinghamshire and Bedfordshire, with the Series carried on for the Survey of Essex.*

XV. *Triangles formed by the Intersections of Churches, Windmills, and other Objects.*

Section II. *Determination of the Latitudes and Longitudes of the Stations on Black Down, in Dorsetshire, Butterton, in Devonshire, and St. Agnes Beacon, Cornwall.*

XVI. *Calculation of the Distance between Black Down and Dunnose in the Isle of Wight.*

XVII. *Latitude and Longitude of Black Down.*

XVIII. *Calculation of the distance between the Stations on Black Down, in Dorsetshire, and Rippin Tor, in Devonshire.*

XIX. *Latitude and Longitude of Rippin Tor.*

XX. *Calculation of distance between Hensbarrow and Butterton.*

XXI. *Latitude and Longitude of Hensbarrow.*

XXI. *Latitude and Longitude of Hensbarrow.*

XXII. *Division of the Meridian at St. Agnes Beacon.*

XXIII. *Latitude and Longitude of St. Agnes Beacon.*

XXIV. *Remarks.*—In this Article, we find many learned, sagacious, and useful observations: but we have not the time and space requisite to dwell on them.

XXV. *Bearings of the Stations in the Series of 1795 and 1796, from the Parallels to the Meridians of Black Down, Butterton Hill, and St. Agnes Beacon: likewise their distances from those Meridians, and from their Perpendiculars.*

XXVI. *Latitudes and Longitudes of the Stations in the Series of 1795 and 1796.*

XXVII. *Bearings of the intersected Objects from the Stations in the Series of 1795 and 1796, from the Parallels to the Meridians of Black Down, Butterton Hill, and St. Agnes Beacon; and likewise their distance from these Meridians.*

XXVIII. *Latitudes and Longitudes of such intersected Objects, in the Series of 1795 and 1796, as have been referred to the Meridians of Black Down, Butterton Hill, and St. Agnes.*

XXIX. *Bearings of the Stations in the Series of 1797 and 1798, from the Parallels to the Meridians of Black Down, Butterton Hill, and St. Agnes Beacon; and likewise their distances from those Meridians.*

XXX. *Bearings of the Stations in the Series of 1799, from the Parallels to the Meridians of Dunnose and Greenwich; and likewise their distance from those Meridians.*

XXXI. *Latitudes and Longitudes of the Stations in the Series of 1797 and 1798, referred to the Meridians of Black Down, Butterton Hill, and St. Agnes Beacon.*

XXXII. *Latitudes and Longitudes of the Stations in the Series of 1799, referred to the Meridians of Dunnose and Greenwich.*

XXXIII. *Bearings of intersected Objects, from the Stations in the Series of 1797 and 1798, from the Parallels to the Meridians of Black Down, Butterton Hill, and St. Agnes Beacon; and likewise their distances from those Meridians.*

XXXIV. *Bearings of intersected Objects, from the Stations in the Series of 1799, from the Parallels to the Meridians of Dunnose and Greenwich; and likewise their distances from those Meridians.*

XXXV. *Latitudes and Longitudes of such Places, in the Series of 1797 and 1798, as have been referred to the Meridians of Black Down, Butterton Hill, and St. Agnes Beacon.*

XXXVI. *Latitudes and Longitudes of such Places in the Series of 1799, as have been referred to the Meridians of Dunnose and Greenwich.*

XXXVII. *Latitudes*

XXXVII. *Latitudes and Longitudes of some remarkable Places, not contained in the preceding Tables.*

Section III. Contains *Trigonometrical Surveys of the Northern and Western Parts of Kent, the County of Essex, and Parts of the adjoining Counties of Suffolk and Hertford, executed in the years 1798 and 1799.*

XXXVIII. Contains *Principal Triangles*;—and XXXIX the *Secondary Triangles.*

XL. *Principal Triangles for the Survey of the Western Part of Kent.*—XLI. *Secondary Triangles.*

Section IV. *Determination of the Altitudes of the Stations above the Level of the Sea; and the mean Refractions deduced from observed Angles of Elevation and Depression.*

XLII. *Account of the Elevations and Depressions.*

XLIII. *Height of the Stations.*

XLIV. *Mean terrestrial Refractions.*

XLV. *Particulars respecting the Altitudes of the Stations.*

XLVI. *Matters relating to Refraction.*

We have thus given what will certainly appear a dry table of the contents of this paper: but we could not afford our readers a satisfactory idea of its extent, labour, and multiplicity of objects, in so short a compass by any other mode.

From the consideration of the refractions mentioned in this and the preceding account, it appears that the bending of rays from their rectilinear course, when such rays are horizontal, and at a considerable distance above the surface of the earth, is much less than theory and opinion state it to be. In a note to this article, Captain Mudge mentions a curious instance of atmospherical refraction.

The whole of this long and detailed account is furnished with Maps; and although there are few persons to whom the labours of Captain Mudge, and the relation of them, will be interesting, yet his undertaking, considered as a national concern, is important, and therefore intitled to attention. The measurements, also, appear to have been conducted with the greatest judgment and nicety; and besides the accomplishment of their express purpose, they may probably in their indirect influence benefit philosophy.

The 1st part of these Transactions for the present year has appeared; and we shall pay our respects to it at the earliest opportunity. We understand that there will be only *two* parts for 1801; and that the second is already in forwardness.

ART. XII. *Political Essays on popular Subjects*; containing Disquisitions on First Principles, Liberty, Democracy, and the Party Denominations of Whig and Tory. 8vo. 3s. Chapple. 1801.

THERE have been periods in which it was the fashion to regard Liberty with an ardent and uncontroled enthusiasm; and there are others in which it is equally the fashion to approach her with suspicion and timidity. There have been writers, also, so enamoured of her, that she inspired them, when discussing her charms, even to poetic flights; and there are others who see, or think that they see, more evils than benefits in her train; and who, under the pretext of securing her from being abused, inculcate doctrines which are destructive of her very essence. Men of this latter stamp deem themselves justified by the atrocities of the French Revolution; and much genius and dexterity of argument are employed to diminish our love of Freedom, and to persuade us that it has been built on visionary principles. According to the author of the *Essays* before us, the doctrines maintained by Lord Somers at the Revolution, and by all the popular writers of the last age, are erroneous and mischievous. Liberty, in his hypothesis, does not emanate from the will of the people, 'it looks up to Government as its author:' whence it follows that, if a Government does not will a people to be free, they have no right to be free;—and, as he farther asserts that, '*restraint* is the first and most essential quality of Government, the right of which it is absurd to suppose to be dependant on the will of the people,' there is not much reason for expecting that, under these circumstances, any great portion of so intoxicating and dangerous an enjoyment as Freedom will be indulged to them, with his consent.

It is amusing to observe with what a string of political axioms this writer prepares us for his conclusions: viz. 'Government must be incompatible with the possession of *abstract* liberty.'—'*Absolute* freedom is self destructive.'—'*Freedom* and *restraint* are not always inconsistent with each other.'—'*Freedom* is one of the essential qualities of Government.'—Since Government has acquired unusual strength, and exerts it in wholesome restraints, 'tyranny has dwindled into a shadow.' Hence it should seem, also, that true liberty can only be received as a boon from our governors. Why, then, alas! did not our ancestors obtain it from the liberty-bestowing hand of James II.? How important is it for us to acquire correct notions of the genuine source of liberty;—which even here is allowed, when properly understood, to be a very good thing! 'It gives (says the author) zest to life.'

life, vigour to occupation, scope to genius, and eminence to merit.

The absurdity of democracy is thus logically proved :—‘ If the generality of mankind require to be governed, it is obvious from that very necessity, that they are not qualified to be governors; or if they are qualified to be governors, they do not require to be governed.’ As logic, however, is a sword, with two edges, and will cut both ways, let us see how the argument will stand when reversed. “ If those who are qualified for governors do not require to be governed, all who evince a capacity for government ought to be exempted from its restraints.” If this, however, be not allowed, and it be maintained that the wise as well as the ignorant stand in need of control, how can it follow, as a necessary consequence, that those who require to be governed are not qualified to be governors?

Numerous syllogisms are here constructed, to prove what no one is inclined to dispute, viz. the impracticability of pure democracy;—while lame and reluctant concessions are made in favour of liberty.

It is, indeed, graciously conceded that ‘ the happiness of a people ought to be the sole object of established authority,’ and that a popular assembly (as in the British Constitution) may be admitted as an occasional restraint: but then we are reminded that the *true doctrine* is, ‘ that power originates from the throne,’ and that the popular assembly ‘ is useful and lawful only as it acts in a subordinate sphere.’—The author adds, ‘ it is therefore that the friends of order and peace, look with horror and indignation on *all* attempts to add a novel influence to the democratical part of our constitution’;—‘ for democracy is more to be dreaded than the overweening power of an aristocracy, or even the unlimited dominion of a king.’ Particular reasons for this superior danger are assigned; the first of which is that democracy ‘ is *intimately* and *immediately* connected with the spirit of infidelity.’ What would the democratic states of Switzerland and America say to this position?

A comparison is also instituted between absolute monarchy and democracy: in which the former is placed in the best and the latter in the worst point of view; (p. 89, &c.) and in which the one is represented as a copy of the government of heaven, the other as directly opposite to the system of divine administration, and ‘ as a successful rebellion against necessary authority.’—This is not ‘ comparing extremes,’ which the author professes to be his intention.

The essay on Whigs and Tories contains an ingenious and animated vindication of the tenets of the latter, (not, how-

ever; it is added, 'in their greatest latitude,') and a condemnation of those of the former. The Whig Club is thus described: 'A Club of British Senators, occasionally blended, it is to be feared, with all the licentious spirits of the age, still exists in the heart of the metropolis, under this appellation; and frequent libations are poured out, by its enthusiastic members, before the idol of liberty.' P. 104.

The whole of this work may be considered as an artful panegyric on absolute Monarchy; in which, under the semblance of balancing different opinions, one scale is always made to preponderate. While it is mercifully allowed 'that Government ought ever to consult the happiness of the people, and that for this purpose it exists,' we are reminded that 'this happiness is not to be considered as synonymous with liberty; for, though liberty in a limited degree is one of the means of happiness, general restraint is necessary to the enjoyment of freedom;'—and the result of the whole is that nations may expect to be happy if they will regard every good as a donation of government: but that disorder and misery must ensue from their claiming the right, and exercising the function, of taking care of themselves.

ART. XIII. *Medical Inquiries and Observations*: containing an Account of the Yellow Fever, as it appeared in Philadelphia in 1797, and Observations on the Nature and Cure of the Gout and Hydrophobia. By Benjamin Rush, M. D. Professor of Medicine in the University of Pennsylvania. Vol. V. 8vo. pp. 236. Printed at Philadelphia, and imported by Mawman, London. Price 5s. Boards.

WE have read this volume with that attention which is due to the author's character, and to the importance of the subjects on which he has treated: but, while we confess our obligations to him for the facts here collected, we must use the freedom of dissenting from some of his opinions. The controversy respecting the yellow fever has been maintained with a degree of virulence, which every friend of science and humanity must deplore; and though we find nothing of this unbecoming spirit in Dr. Rush's publication, we apprehend that he has been piqued into a defence of some very questionable points, by the opposition which his doctrines had encountered. When personal considerations are intermixed with general discussions, the interests of Science must unavoidably suffer; and the most candid men become unconsciously biassed in their views, when their reputation and fortune are staked on the success of an experiment, or the popularity of an hypothesis. We there-

fore make great allowances for the solicitude of Dr. Rush, to prove that the contagious fever of Philadelphia arose from heaps of *putrid coffee*, or of potatoes, prunes, almonds, &c. but we cannot, consistently with our duty, suffer opinions so destitute of solidity, and so mischievous in the consequences deducible from them, to pass our tribunal unnoticed and unopposed.

Dr. Rush first endeavours to establish the unity of fevers, and to shew the impropriety of nosological distinctions, by a recital of the various forms under which this epidemic appeared.

‘ Most of the cases of bilious fever which came under my notice, were attended with quotidian, tertian or quartan intermissions. In a few of my patients there was an universal rash.

‘ Dr. Woodhouse informed me, that he had seen several instances in which the yellow fever had been taken from some soldiers who had laboured under the dysentery. These facts shew the unity of fever, and the impracticability of a nosological arrangement of diseases.’

These facts certainly do not warrant so extensive a conclusion. The remissions of a disease may be rendered irregular, or may be postponed, by the large evacuations which the author employed:—the eruption is an accident which attends all forms of fevers, in certain seasons, without altering their essence; and Dr. W.’s assertion is too loosely stated, to be received without allowance in a matter of so much importance. We are no advocates for implicit faith in nosological arrangement; it has hitherto been arbitrary and artificial; and the utility of the best nosological works has been chiefly felt by students, as books of reference. We may hope, however, that a natural arrangement of diseases may yet be accomplished; and when that great object shall be attained, there will be no occasion for disputing concerning its benefits.

After having described the cases of the first persons attacked by the yellow fever, in 1797, Dr. Rush adds;

‘ Attempts were made to trace it to importation, but a little investigation soon proved that it was derived from the foul air of a ship which had just arrived from Marseilles, and which discharged her cargo at Pine-street wharf, near the stores occupied by Mr. Lewis and Mr. Hall. Many other persons about the same time were affected with the fever from the same cause, in Water and Penn streets. About the middle of the month, a ship from Hamburgh communicated the disease, by means of her foul air, to the village of Kensington. It prevailed moreover in many instances in the suburbs, and in Kensington from putrid exhalations from gutters and marshy grounds, at a distance from the Delaware, and from the foul ships which have been mentioned. Proofs of the truth of each of these assertions shall be given in their proper place.’

In all disputes, much depends on a proper comprehension of the terms. In this passage, Dr. Rush denies that the disease was

was imported; yet he ascribes its origin to the foul air of a foreign ship, just arrived. What is this but importation of disease? It is of little consequence to distinguish between the communication of fever, from a patient actually labouring under the disease, and from contagion preserved in some *fomes* on board a vessel.

We meet with little new information relative to the symptoms of the disease; except that we are told, respecting the black vomiting, that 'Dr. Stewart ventured to taste the black matter which was discharged from the stomach just before death in two instances. In both cases it blistered his tongue.'

Dr. Rush divides the forms of this fever into eleven:

'1. In a few cases the contagion or miasmata produced death in four and twenty hours with convulsions, coma, or apoplexy.

'2. There were OPEN cases in which the pulse was full and tense as in a pleurisy or rheumatism from the beginning to the end of the fever. They were generally attended with a good deal of pain.

'3. There were depressed or LOCKED cases, in which there were a sense of great debility, but little or no pain, a depressed and slow pulse, a cool skin, cold hands and feet, and obstructed excretions.

'4. There were DIVIDED or MIXED cases in which the pulse was active until the 4th day, after which it became depressed. All the other symptoms of the locked state of the fever accompanied this depressed state of the pulse.

'5. There were cases in which the pulse imparted a perception like that of a soft and SHATTERED quill. I have before mentioned that this state of the pulse occurred in Dr. Jones and Dr. Dobell. I felt it but once and on the day of his attack in the latter gentleman, and expressed my opinion of his extreme danger to my son upon my return from visiting him. I did not meet with a case which terminated favourably, where I perceived this SHATTERED pulse. A disposition to sweat occurred in this state of the fever.

'6. There were what Dr. Caldwell happily called WALKING cases. The patients were here flushed or pale, had a full or tense pulse, but complained of no pain, had a good appetite, and walked about their rooms or houses as if they were but little indisposed until a day or two, and in some instances, until a few hours before they died. The impression of the remote cause of the fever in these cases was beyond sensation, for upon removing a part of it by bleeding or purging, the patients complained of pain, and the excitement of the muscles passed so completely into the blood-vessels and alimentary canal, as to convert the fever into a common and more natural form. These cases were always dangerous, and when neglected, generally terminated in death. Mr. Brown's fever came on in this insidious shape. It was cured by the loss of upwards of an 100 ounces of blood, and a plentiful salivation.

'7. There was the INTERMITTING form in this fever. This, like the last, often deceived the patient by leading him to suppose his disease was of a common or trifling nature. It prevented Mr. Richard

Smith

Smith from applying for medical aid in an attack of the fever for several days, by which means it made such an impression upon his viscera, that depleting remedies were in vain used to cure him. He died in the prime of life, beloved and lamented by a numerous circle of relations and friends.

8. There was a form of this fever in which it resembled the mild remittent of common seasons. It was distinguished from it chiefly by the black colour of the intestinal evacuations.

9. There were cases of this fever so light, that patients were said to be neither *sick* nor *well*: or in other words, they were sick and well, half a dozen times in a day. Such persons walked about, and transacted their ordinary business, but complained of dulness, and occasionally, of shooting pains in their heads. Sometimes the stomach was affected with sickness, and the bowels with diarrhœa or costiveness. All of them complained of night sweats. The pulse was quicker than natural, but seldom had that convulsive action which constitutes fever. Purges always brought away black stools from such patients, and this circumstance served to establish its relationship to the prevailing epidemic. Now and then by neglect, or improper treatment, it assumed a higher and more dangerous grade of the fever, and became fatal, but it more commonly yielded to nature, or to a single dose of purging physic.

10. There were a few cases in which the skin was affected with universal yellowness, but without more pain or indisposition than usually occurs in the jaundice. They were very frequent in the year 1793, and generally prevail in the autumn, in all places subject to bilious fever.

11. There were *CHRONIC* cases of this fever. It is from the want of observation that physicians limit the duration of the yellow fever to certain days. I have seen many instances in which it has been protracted into what is called by authors a slow nervous fever. The wife of captain Peter Bell died of a black vomiting after an illness of nearly one month. Dr. Pinckard, formerly one of the physicians of the British army in the West Indies, in a late visit to this city informed me, that he had often seen the yellow fever put on a chronic form in the West India Islands.

The question of the origin of contagion, in this epidemic, unfortunately divided the faculty in Philadelphia. Dr. Rush, with twelve other physicians, imputed it to the foul air of ships arriving at the wharfs, and to putrid exhalations from sewers or marshy grounds. In one instance, however, (p. 52, 53) they supposed that the contagion of the yellow fever was imported in the sails of a ship from Port au Prince. The college of Physicians of Philadelphia, in a memorial presented to the Governor, declared themselves of opinion that the disease was imported from the West Indies; and the facts produced by them seem to be perfectly conclusive: but, as we have already reviewed this memorial*, we shall not repeat our ob-

* See Rev. N. S. vol. xxix. p. 452.

servations on it here. To this paper, a reply was published by the medical gentlemen in opposition, which we have not room to analyse, but which does not appear to us to be a satisfactory answer.—We are sorry to remark, in this part of the work, the extraordinary facility with which Dr. Rush receives any facts which tend to support his peculiar hypothesis. He enumerates, among the causes of bilious fever, *old books, and bank-notes* *, *old timber and green timber* †, and *duck-ponds and bog-styes* ‡. Nothing can parallel this catalogue of the causes of fever in point of medical superstition; excepting the different modes by which old women cure the ague.

The remedies employed by Dr. Rush, in yellow fever, were, 1st, bleeding. In praise of this remedy he is profuse: but he observes that, in the late epidemic, it often failed to be of service after the first day; and frequently did mischief on the days subsequent to the second. This is an important limitation of its usefulness, which must in many cases amount to a prohibition of the practice. Respecting the propriety of the large evacuations by the lancet, directed by Dr. Rush, it would be scarcely becoming in us to hazard an opinion.

2. Purging was also of much importance in the opinion of the author. He gave large doses of calomel to procure evacuations from the bowels; and he has remarked, what every one acquainted with the effects of calomel must have observed, that, when common doses did not operate, enormous quantities of it were requisite. In such instances, Dr. Rush would probably have found Rochelle-salt, with infusion of senna, or some other mild laxative, answer his purpose more effectually.

3. The author proceeds to observe that, 'However powerful bleeding and purging were in the cure of this fever, they often required the aid of a SALIVATION to assist them in subduing it.'—To Dr. Rush's experience we cannot object: but his reasoning on the propriety of this severe treatment appears to us somewhat vague and inconclusive. We should have expected, *a priori*, that few constitutions would resist the excessive stimulus of mercury, superadded to the fever which already, by supposition, existed in the system:—but these are days of wonder, in medical as well as in political experiments.

Vomits, Dr. R. thinks, are prejudicial in yellow fever.

Some other therapeutical remarks occur, which are not very important.

This irregular essay concludes, in a singular manner, with the prognostics of the yellow fever.—They are such, however, as deserve the attention of practitioners.

* P. 102. § 13.

† Ibid.
G 3

‡ P. 103.

In his 'Observations on the Gout,' Dr. Rush has adopted the principles of the Brunonian system. On this part of the work we shall say little, because the fashion of that system has passed away, among the most respectable physicians of this country. It is curious, however, to see our exploded theories adopted in the new world, and in some parts of the Continent of the old, just as old wigs are exported from Middle-row in Holborn, to deck the heads of kings and princes on the slave-coast. Dr. Rush expresses a hope that all distinctions of morbid action will, in time, be lost in the general term, disease. He probably had in view the orator's definition of eloquence. What, it may be said, is Gout? Action!—What is Dropsy? Action!—What is Lethargy? Action!—It would be impossible to produce another answer, till the inquirer should arrive at the important question, What is your fee, Doctor? It would then occur to the medical sage that, though pounds, shillings, and pence may all be merged in the general term *Money*, without disadvantage to the abstract rules of philosophy, yet the loss to an individual might prove very serious, from confounding them under one *Genus*; and he would therefore exert his powers of numismatic arrangement, in calculating the *grades* of coin, and the number of heavy guineas due to him.—We hope that this harmless levity, in illustrating our grounds of dissent from Dr. Rush's general principles of pathology, will not give him offence. We respect his talents; and because we respect them, we grieve to see them misdirected by a delusive theory, which no longer influences the minds of respectable British practitioners.

We observe little that is new in Dr. Rush's history of this disease, excepting some attempts to identify other disorders with gout, in which we cannot coincide. We forbear to multiply examples of this sort of inaccuracy, and shall only notice the author's opinion (p. 159.) that the *tip douloureux* is a gouty affection; on which subject, we are now better informed by Dr. Haighton: but we must not overlook his extraordinary suggestion of the sameness of some states of the gout and the yellow fever! This is simplifying with a vengeance.

The methods of cure proposed for gout are, blood-letting, purging, vomiting, nitre, cool air, diluting liquors, abstinence from wine and other stimulating fluids, blisters, and *fear*. These are directed in that form of the disease which we term regular gout.

In the Atonic form, or what Dr. Rush denominates a *feeble* morbid action, remedies of an opposite class are advised; Madeira, porter, ardent spirits, &c. and, to crown all, SALIVATION,

Yes, gentle reader, salivation in the *feeble* state of the gout :— but we have not yet done with wonder :—

‘ The reader will perceive in the account I have given of the remedies proper in the feeble state of chronic fever, that they are the same which are used in the common typhus, or what is called nervous fever. There is no reason why they should not be the same, for the supposed two morbid states of the system, are but one disease.’

By the cap of Paracelsus, this parallel exceeds our most sanguine hopes of fresh trophies for the new triumphal car of Mercury !

The rules for prevention are nearly the same with those which have been prescribed by former writers.

The concluding Essay in this volume contains Observations on the nature and cure of Hydrophobia. Dr. Rush begins by informing us that he has satisfied himself with a theory of hydrophobia, which he hopes will lead to a rational and successful mode of treating it. Great, therefore, was our expectation of the theory thus announced ; and great was our disappointment on learning that the Doctor considers it as ‘ *a malignant state of fever.*’ Such, however, must be the result of the loose analogies and undistinguishing arrangements, which the author has adopted : “ fair is foul, and foul is fair ;” gout is fever, and hydrophobia is fever, because fever is disease, and gout is disease, &c.—The use of the undefinable word, *malignant*, adds farther obscurity to Dr. Rush’s theory. Sydenham has inveighed strongly against this term, which he declares to have occasioned more slaughter than the invention of gun-powder ; and we had hoped that it was quietly laid up among other lumber,

“ Abortive, monstrous, or unkindly mix’d,” (MILTON.)
in Limbo. A theory cannot be reckoned clear, when it contains, in its essence, a term about which no two disputants will agree.

The first remedy proposed by Dr. Rush, in hydrophobia, is *blood-letting* :

‘ All the facts which have been mentioned, relative to its cause, symptoms, and the appearances of the body after death, concur to enforce the use of the lancet in this disease. Its affinity to the plague and yellow fever in its force, is an additional argument in favour of that remedy. To be effectual, it should be used in the most liberal manner. The loss of 100 to 200 ounces of blood will probably be necessary in most cases to effect a cure. The pulse should govern the use of the lancet as in other states of fever, taking care not to be imposed upon by the absence of *frequency* in it, in the supposed absence of fever, and of *tension* in affections of the stomach, bowels, and brain. This practice in the extent I have recommended it, is justified not

only by the theory of the disease, but by its having been used with success in the following cases.

‘ Dr. Nugent cured a woman by two copious bleedings, and afterwards by the use of sweating and cordial medicines,

‘ Mr. Wrightson was encouraged by Dr. Nugent’s success to use the same remedies with the same happy issue in a boy of 15 years of age.

‘ Mr. Falconer cured a young woman of the name of Hannah Moore by “a copious bleeding,” and another depleting remedy to be mentioned hereafter.

‘ Mr. Poupert cured a woman by bleeding until she fainted, and Mr. Berger gives an account of a number of persons being bitten by a rabid animal all of whom died, except two who were saved by bleeding.

‘ Dr. Marsillac has favoured me with the history of a case of hydrophobia from the bite of a mad dog, in which copious and repeated bleedings directed by Dr. Le Compt in France in the year 1786, performed a perfect cure in five weeks.—The bleedings were aided by another medicine to be mentioned in its proper place.

‘ In the 40th volume of the Transactions of the Royal Society of London, there is an account of a man being cured of hydrophobia by Dr. Hartley by the loss of 120 ounces of blood.

‘ Dr. Tilton cured this disease in a woman in the Delaware state by very copious bleeding. The remedy was suggested to the Doctor by an account taken from a London Magazine of a dreadful hydrophobia being cured by an accidental and profuse hæmorrhage from the temporal artery.

‘ A case is related by Dr. Inngs, of the loss of 116 ounces of blood in seven days having cured this disease. In the patient who was the subject of this cure, the bleeding was used in the most depressed, and apparently weak state of the pulse. It rose constantly with the loss of blood.

‘ The two last of the above cases were said to be of a spontaneous nature, but the morbid actions were exactly the same in both patients with those which are deriyed from the bite of a rabid animal.’

— This profuse plan of evacuation must startle European practitioners, who have been accustomed to treat this disease on opposite principles.—We add the following curious fact :

‘ Before I quit the subject of blood-letting in hydrophobia, I have to add, that it has been used with success in two instances in dogs that had exhibited all the usual symptoms of what has been called madness. In one case, blood was drawn by cutting off the tail, in the other, by cutting off the ears of the diseased animal. I mention these facts with pleasure, not only because they serve to support the theory and practice which I have endeavoured to establish in this disease, but because they will render it unnecessary to destroy the life of a useful and affectionate animal in order to prevent his spreading it. By curing it in a dog by means of bleeding, we moreover beget confidence in the same remedy in persons who have been bitten by him, and thus lessen

lessen the force of the disease, by preventing the operation of fear upon the system.'

Purging, sweating, and salivation,—Dr. Rush's general plan for treating diseases,—bring up the rear of depletion.

Such are the general contents of the volume before us.—We cannot but consider it as an extraordinary circumstance, that a physician of experience and reputation should adopt the indiscriminating system of Brown; which intelligent students commonly discard when they become familiar with the real appearances of disease. The evil consequences of such an adoption are but too apparent in the present work; in which the same routine of practice is recommended in yellow fever, in gout, and in hydrophobia. This routine is not so harmless as Moliere's recipe,

“*Clysterium donare,
Postea sanguinare,
Ensuita purgare.*”

The loss of one or two hundred ounces of blood, succeeded by brisk purging, and followed up by the debilitating powers of salivation, is no neutral course of medicine!

Our conviction of the great danger, which is to be feared from the doctrines and practice recommended by this author, has compelled us to state our objections to both with freedom; it may be said, with severity: but it must be considered that authority in medicine has peculiar weight; and that a writer, who has established a reputation by former works, may contribute to the propagation of serious error by lending his name to the support of false doctrines and hazardous practices, at a subsequent period of his life.

We have received some other tracts by Dr. Rush, of which we shall take notice hereafter. (See p. 91.)

MONTHLY CATALOGUE,

For SEPTEMBER, 1801.

PHILOSOPHY, NATURAL HISTORY, &c.

Art. 14. *The Naturalist's and Traveller's Companion.* By John Coakley Lettson, M. D. The third Edition. 8vo. 4s. Boards. Dilly.

THIS will be found to be a very useful compilation for travellers, who may wish to bring home something more than the names of the towns which they have visited, or the signs of the inns at which they have been refreshed. The directions here contained, for conveying plants safely during sea-voyages, will be of particular utility.

Art. 15. *A Meteorological Journal of the Year 1800*, kept in London, by William Bent. To which are added, Remarks on the State of the Air, Vegetation, &c.; and Observations on the Diseases in the City and its Vicinity. 8vo. 2s. Bent.

This is a prosecution of Mr. Bent's annual labours, which we hope will continue to meet with public patronage. Mr. B. has also printed a general title-page, and an introduction, for a volume consisting of the eight annual Journals which he has kept, from 1793 to 1800; which volume is sold for 15s. bound. The Introduction includes tables, from eight preceding Journals, of the greatest, least, and mean height of the barometer and thermometer, in every month of the years 1785 to 1792.

Art. 16. *An Essay on the general Study of Experimental Philosophy*, and the Utility of Chemistry: introductory to a Course of Lectures on the Philosophy of Chemistry, and the Connection of that Science with the Arts and the other Sciences. By Anthony Todd Thomson, Surgeon, Honorary Member and late President of the Royal Physical Society; and Member of the Medical and the Speculative Societies of Edinburgh, 8vo. 1s. 6d. Callow.

A well-written paper, calculated to recommend the course of lectures proposed by the author.

MEDICAL, &c.

Art. 17. *Considerations regarding Pulmonary Consumption.* By Thomas Sutton, M. D. 8vo. pp. 121 3s. Robinsons.

After a brief history of the case, which led to the train of investigation now before us, Dr. Sutton proceeds to state his doubts on the production of hectic fever by the absorption of Pus. This scepticism seems to have been a new idea with the Doctor, and he tells us that he was agreeably surprised to find Dr. Read supporting the same opinion. The first person, however, who supposed that the absorption of Pus does not necessarily produce hectic fever, was the late Mr. Hunter, who taught it many years ago.

Dr. Sutton next delivers his opinion of the proximate cause of the debility and emaciation which take place in phthisis; he imagines it to be obstruction in the mesenteric glands; and that the tubercles in the lungs, and some other pulmonary symptoms, are excited by sympathy. This doctrine, which he labours strenuously to support, may be refuted by a very obvious suggestion. It had escaped Dr. Sutton's consideration that the lungs perform a great, and indispensable part in nutrition. In the lungs, the chyle is assimilated with the blood; and any change of structure in them, which alters or impedes this operation, must at once emaciate and irritate the whole system. This view of the subject solves every difficulty started by Dr. Sutton against the common notion of the cause of phthisis, and renders his migration to the mesenteric glands totally unnecessary. — The plan of cure, by repeated emetics, which Dr. S. proposes, in consequence of his hypothesis, has been already recommended to the public on other grounds, but has never been adopted to any considerable extent; which is a sure proof that it has seldom succeeded,

Purging

Purging is also advised by Dr. Sutton; and he has advanced a most unaccountable opinion, that a natural cure of phthisis has sometimes been produced by the purging which attends the last stage of the disease. The united experience of the faculty has decided, on the contrary, that this species of diarrhoea is ultimately fatal.

Exercise on horseback, sea voyages, and some other common methods of treating consumptive patients, are mentioned with approbation. Dr. Sutton professes to have tried the digitalis, unsuccessfully: but we cannot admit his experiments with it to be conclusive, because he gave it during the emetic course, which would certainly counteract its beneficial properties.

On the whole, we are sorry to find that Dr. Sutton has added nothing to the fund of useful knowledge, on the subject of this fatal disease. His zeal for the improvement of medical science, however, is highly commendable; and he may learn, by correcting his first ideas, hereafter to contribute to the common stock something which may be really important.

Art. 18. *Observations upon the Origin of the Malignant, Bilious, or Yellow Fever in Philadelphia*, and upon the Means of preventing it: addressed to the Citizens of Philadelphia. By Benjamin Rush. 8vo. 18. Philadelphia. 1799. Imported by Mawman, London.

Dr. Rush continues, in this pamphlet, to support his opinion that the yellow fever is generated in Philadelphia, by various public and domestic nuisances. He has, in consequence, recommended the following means of prevention:

1. Let the docks be immediately cleaned, and let the accumulation of filth in them, be prevented in future, by conveying water into them by a passage under the wharfs, or by paving them with large flag stones inclining in such a manner towards the channel of the river, as that the filth of the streets shall descend from them (after it falls into the docks) into the river. This method of paving docks has been used with success in the city of Brest. The street now known by the name of Dock-street once exposed a large surface of filth to the action of the sun. Its neighbourhood was more sickly at that time, than any other part of the city. By means of the present arch over that filth, Dock-street has been exempted from an unusual number of sick people during the summer and autumnal months.

2. Let every ship that belongs to our port be compelled by law to carry a ventilator. Let all such ships as are discovered to contain foul air in their holds, be compelled to discharge their cargoes before they reach our city, and let the ships in port, be compelled to pump out their bilge water every day.

3. Let the common sewers be washed frequently with streams of water from our pumps. Perhaps an advantage would arise from opening them and removing such foul matters, as streams of water are unable to wash away.

4. Let the gutters be washed every evening in warm weather. By frequently washing the streets and pavements, the heat of the city would

would be lessened, and thereby one of the predisposing causes of the fever would in some measure be obviated. The use of water for the above purposes, has become more necessary since the streets and gutters have been so closely paved; for the filth which formerly soaked into the earth, is now confined, and emits its noxious vapors into the atmosphere.

‘ 5. The utmost care should be taken to remove the filth from the yards and cellars of every house in the city. Hog-styes should be forbidden in yards, and the walls of cellars should be white-washed two or three times a year, and their floors should be constantly covered with a thin layer of lime. White washing the outside of houses in sickly streets, would probably be useful.

‘ 6. Let the privies be emptied frequently; and let them be constructed in such a manner as to prevent their contents from oozing through the earth so as to contaminate the water of the pumps. The famous Ambrose Parcy ascribed one of the plagues of Paris wholly to foul air, and impure water. Mr. Latrobe in a note, in his proposal for his present important undertaking, has very properly pointed out the impurity of our water as one of the remote causes of the yellow fever.—Happy will it be for the citizens of Philadelphia if by means of that gentleman’s plan for supplying the city with river water, they should be delivered from the necessity of making use of the water from their pumps for drinking, and culinary purposes.

‘ 7. Let all the filth be removed from the neighbourhood of the city, and let the brick kiln, and other ponds be filled up, from time to time, with the earth which is obtained in digging cellars.

‘ 8. In the future improvements of our city, let there be no more dwelling houses erected in alleys. They are often the secret receptacles of every kind of filth. The plague always makes its first appearance in the narrow streets, or in the dirty huts of the suburbs of Constantinople.

‘ 9. The predisposition of our citizens to be affected by the remote and exciting causes of the yellow fever, would be very much lessened by their living sparingly upon fresh animal food and chiefly upon broths and fresh vegetables rendered savoury by spices, and a small quantity of salted meat, during the summer and autumnal months. A constant attention should be paid at the same time to bodily cleanliness.’

The efficacy of these methods, we apprehend, would be greatly increased by the establishment of permanent fever-wards; which would check the progress of the disease, whether imported or home-bred. That mode of prevention which is supported by experience, with the least reference to theory, is unquestionably the best.

A larger work by Dr. Rush, on this subject, is noticed in p. 81. of this number of our Review.

Art. 19. A Concise View of the most important Facts which have hitherto appeared concerning the Cow-Pox. By C. R. Aikin, Surgeon. Small 8vo. pp. 202. with a coloured Plate. 2s. Boards. R. Phillips.

The

The leading facts relating to this important discovery are well digested and arranged, in this neat abridgement. The greater part of Dr. Jenner's book is here incorporated; and the principal objections, which have been urged against the Vaccine inoculation, are briefly, but satisfactorily answered. Now, indeed, that so much additional experience has been gained on the subject, we may consider the practice as established.

Art. 20. *Observations on the Cow-Pox.* By William Woodville, M. D. 8vo. 1s. 6d. W. Phillips.

These observations relate to the supposed impurity of the vaccine matter employed by Dr. Woodville in inoculation. Dr. Jenner had supposed that it was mixed with variolous matter, which is here strenuously denied; and the pustular eruptions, which attended some of Dr. Woodville's cases, seem now to be explained on a different principle. Dr. W. supposes that they resulted from the variolated atmosphere of the hospital, and he has mentioned several facts which render this solution probable.

Art. 21. *Reflections on the Cow-Pox,* illustrated by Cases to prove it an absolute security against the Small-Pox; addressed to the Public, in a Letter to Dr. Jenner, from William Fermor, Esq. 8vo. 1s. Robinsons.

As coming from an intelligent gentleman, unconnected with the medical profession, this pamphlet carries all the weight of unbiassed evidence. The cases, though not very numerous, are satisfactory, and are clearly related.

Art. 22. *Practical Observations on the Inoculation of the Cow-Pox:* to which is prefixed, a Compendious History of that Disease; and of its Introduction as a Preventive of the Small-Pox. Designed principally to promote a Knowledge of the Subject amongst those who have not hitherto attended to it. By John Addington, Surgeon. 8vo. 1s. 6d. Johnson.

The general facts stated in this pamphlet are nearly the same with those contained in Mr. Aikin's "Concise View:" but the author has corroborated them by several cases which fell under his own cognizance. He seems to have attended early to the subject of vaccine inoculation.

Art. 23. *A Comparative Statement of Facts and Observations relative to the Cow-Pox,* published by Drs. Jenner and Woodville. 4to. pp. 43. With a coloured Plate. 5s. Hurst.

This is an acute and sensible view of the points in dispute between Dr. Jenner and Dr. Woodville. On the subject of the origin of cow-pox-contagion from the greased heels of the horse, we are presented with the following curious experiment, related by Mr. Tanner, a Veterinary Surgeon:

"Some cow-pox matter on a thread was applied to the teat of a cow on the part from which a scab had been removed. I procured it from Mr. Fewster of Thornbury, who told me it had been kept a long time, and that he did not think it possible for it to produce any effect, I went to the cow, and examined the part where it had been applied, in five days after, but it had not produced the smallest effect.
Some

Some limpid matter, just taken from the heel of a horse, was then applied on the part; and on the ninth day, when I first examined it, I found that it had produced a complete vaccine pustule. From handling the cow's teats, I became infected myself, and had two pustules on my hand, which brought on inflammation, and made me unwell for several days. The matter from the cow, and that from my own hand, proved efficacious in infecting both human subjects and cattle."

As Dr. Woodville has very handsomely acknowledged, in his Observations, the probability that pustular eruptions, after vaccine inoculation, may have been produced by exposure to a variolated atmosphere, (which was the principal point at issue,) we shall not enter more particularly into the contents of this statement.

Art. 24. *A Conscious View of the Circumstances and Proceedings respecting Vaccine Inoculation.* 8vo. 2s. Hurst.

This is a kind of protest against the vaccine inoculation, composed partly in jest, and partly in earnest. The author is exceedingly afraid of the consequences of introducing a bestial disease among us; and so great, indeed, is his alarm, that we expected to find him predicting the growth of *horns* on the subjects of this practice. In the course of the pamphlet, however, we found, after several shrewd hints, that he is also a determined enemy to inoculation for the small-pox; which he declares to have supported the existence of the disease among mankind. We certainly have not been converted to this gentleman's opinions, respecting either of these diseases, as communicated by inoculation.

There seems to be an error in this title-page; the phrase '*conscious view*' has no meaning. We suppose that the author must have intended to write *concise*, or *conscientious*.

Art. 25. *A Treatise on the Venereal Rose.* By William Butter, M. D. 8vo. 3s. Cadell jun. and Davies.

We must relieve the perplexity which many of our readers will feel from the title of this pamphlet, by informing them that it treats of virulent Gonorrhæa, which Dr. Butter considers as a species of Erysipelas: but this analogy, which he has laboured to establish in the body of the treatise, does not appear to be satisfactorily ascertained. Dr. B. has omitted all notice of what has been written by modern practitioners on this disease; and he has combated Astruc's theory of it, as if Hunter, and other eminent names, in this branch of medicine, had never existed. A considerable part of the *Ratio Symptomatum* is indeed expressed in such obsolete language, that we might be tempted to suppose that the writer was unacquainted with all recent opinions on the subject.

The cure of Gonorrhæa, recommended by Dr. Butter, consists chiefly in the internal use of Hemlock; a medicine for which he has long been a zealous advocate. If any of our readers should be disposed to try this method, for the success of which the author alledged his own experience, they will meet with full directions for employing it, in the treatise before us.—We cannot avoid adding that the language of this pamphlet is exceedingly unpolished.

Art.

- Art. 26. *New Inventions and New Directions*, productive of Happiness to the ruptured: with some military and parochial Considerations on Ruptures. By a private Gentleman. 8vo. 1s. 6d. Hurst. 1800.

This gentleman informs us that he has obtained relief in a rupture of long-standing, by wearing a cushion of coarse calico, under the pad of his truss; and by fixing the circular bandage directly round the body, so as to surround the lower part of the sacrum, instead of carrying it, as usual, over the hips. He appears to write from long observation, and with feelings of benevolent commiseration excited by painful experience; his hints, therefore, undoubtedly deserve attention from those who are interested in alleviating this too common affliction.

- Art. 27. *On the Necessity for contracting Cavities between the Venous Trunks and the Ventricles of the Heart*; on the Use of Venous Sinuses in the Head; on the wonderful Provision made for the Transition from the foetal to the breathing state; on Palpitation; on Death; and on Life; with Reflections on the Treatment of Animals. By John Walker. 8vo. pp. 42. Edinburgh, Mudie; London, Darton and Harvey.

This essay was originally composed in Latin, and was designed for the author's inaugural dissertation at Leyden. We find nothing in it which has not been taught by preceding writers on physiology: but the arrangement, as is usual in treatises written to obtain a degree, is more studied than that of a common pamphlet. *Materiam superabat opus.*

POETIC and DRAMATIC.

- Art. 28. *The Pleasures of Solitude*. A Poem. By P. Courtier. Crown 8vo. 2s. 6d. Boards. Hurst. 1800.

This small poem, which is divided into three books, is not deficient in elegance of thought and neatness of expression; which are the chief qualities that we have a right to expect, in a composition relating to a subject so often treated by former writers. We have some doubt, however, whether the stanza chosen by the author be well adapted to his subject: it reminds us, indeed, of the delicious song of the Wizard, in the Castle of Indolence: but, even in Thomson's hands, the stanza is found too lingering and heavy, in other parts of that poem. Mr. Courtier's *Solitude* is very different, however, from the lazy retreat of that immortal author: it is the repose of one who is broken by the storms of life, and

“ Whose pinnace anchors in a craggy bay,
After the tempest ;—”

and he has been successful in contrasting scenes of turbulent gaiety, with the mild enjoyments of rural life:

‘ See through the mazes of the midnight ball
With rapid feet yon splendid triflers fly;
From every tongue what flattering periods fall!
How smiles each face! how sparkles every eye!

So

- So loud their mirth, thou deem'st no sorrow nigh.
 But learn, thou erring judge, there envy lours,
 There jealousy extorts the bitterest sigh,
 There, all her poison'd chalice scandal pours,
 And lassitude soon clogs the bliss-devoted hours.
- * But ô how sweet, how passing sweet, to rove
 Where sits unseen the minstrel of the night,
 And trills such music o'er the listening grove
 As sure might harmonize the rudest sprite!
 Then, while the moon from her meridian height,
 And all the countless stars that 'round her burn,
 Shed o'er the tranquil scene their tender light,
 The soul, sublimed, each earthly care may spurn,
 And towards its native heaven with holy longing turn!
- * Then, nought of discord harsh thine ear shall wound,
 Like theirs who tread the city's crowded ways!
 The distant water's faintly murmuring sound,
 The whispering wind that through the foliage strays,
 The tinkling bell of sheep that startled gaze,
 The clock's deep chime from half hid village spire,
 The watchful dog at fancied thief who bays,
 Though simple all their tones, such thoughts inspire,
 That from thy bosom far shall passion's brood retire.*

This is very well said; and there are other passages which it would give us pleasure to extract: but we must not plunder so short a composition.

We have been particularly pleased to remark, that the diction of this writer is not formed on the affected model which we have often had occasion, of late, to disapprove. His style is flowing, and generally pure; though we have observed one or two exceptions: for example, 'dregged the chalice,' for drain'd it to the dregs; and 'to individualize,' which is not only unpoetical, but is not an English word. We might mention other instances of the same kind, but we only point out these for the purpose of warning against that spirit of innovation in style, which threatens a decline from the language of our good writers; and which, if unchecked, would insensibly corrupt even those who, like Mr. Courtier, are capable of rising above prevalent barbarisms. We trust, therefore, that he will take our admonition in good part.

Art. 29. *Rime scelte di Francesco Petrarca.* Crown 8vo. 5s. Boards.
 Becket. 1801.

The paper, the type, and the selection of sonnets and canzoni, are all the circumstances which require notice in this publication; and they are excellent.—It is too late in the day to think of analysing the poetry of Petrarca. Young and tender readers deem it exquisitely sweet and sorrowful: while the old and tough-hearted consider it as downright nonsense,—*belle parole*, pretty words, without meaning; and a third set, without feeling all the monotony of complaint and ideal misery, will admire the elegance of the language, and the beauty of the versification.

Art.

Art. 30. *Virginia*, an Opera, in Three Acts, by Mrs. F. Plowden. 8vo. 2s. Barker. 1800.

This play having been ill received by the audience on its representation, the author has determined to "*print it, and shame the fools.*" The preface informs us that it was composed under the pressure of misfortune; we shall therefore be glad if it meets with more favour in the closet; and that we may throw no obstacles in the way of its success, we shall dismiss it with merely our good wishes.

ART. 31. *A Review of the Musical Drama of the Theatre-Royal, Drury-Lane*, for the Years 1797, 98, 99, and 1800; which will tend to develop a System of private Influence injurious to musical emulation and public Entertainment; and to elucidate several interesting Points of Matter in Mrs. Plowden's late distinguished Publication. Addressed to the Proprietors of the Theatre. By R. Houlton, M.B. 8vo. 2s. Westley. 1801.

In this kind of warfare, as in all others, we pretend not to judge of facts before we have heard both sides: but there never was, we suppose, a dramatic entertainment of any description brought on the stage, without cabal of one kind or another. How Mr. Kelly supports his influence over the managers, we know not. The vocal *conoscenti* affirm that his singing is mongrel; half Italian and half Irish: that is, *macaroni* dressed in *potatoes*;—and his *composition*, say fastidious critics, is of no style, either national or individual:—it is memory and transcription. Regularly bred composers are up in arms against him, and against the public for tolerating his pretensions.—Whether Mrs. Plowden's drama had intrinsic merit sufficient for its salvation, with fair play, our readers may perhaps conjecture from the preceding article: but there can be little doubt of the opposition of Mr. K. to the claims of all musical candidates for fame at D. L. except his own.

We shall say no more relative to these truly *tweedle-dum* and *tweedle-dee* quarrels, than that the pamphlet before us is written on stilts; and that the author seems to be a partizan, who represents only one side of the dispute.

Of Mr. Houlton's opera intitled *Wilmore Castle*, an account was given in our number for July last, p. 323.

Art. 32. *Olimpia, Drama in Cinque Atti*; &c. Olympia, a Drama in Five Acts, written in Italian Prose by Gaetano Polidori, Teacher of the Italian Language in London. Small 8vo. Sold by the Author, No. 42, Broad-street, Soho.

This tragedy is not inferior in merit to two others by the same author, of which we have already spoken favourably*:—the conduct is regular; and the incidents are affecting. If the end of tragedy be "to excite terror and pity," Sign. Polidori has amply accomplished that purpose, and has very unexpectedly unravelled his plot by a happy termination. We were somewhat surprised, however, to find that the wife of him who causes all the disasters, which happen to the heroine of the piece and her family,—and who, like Lady Macbeth, is the instigatrix to all her husband's atrocities,—

* See M. R. vol. xxviii. N. S. p. 352.

seems to escape not only unpunished, but uncensured.—If the tyranny of the Sicilian government and nobility be faithfully described in this drama, the lower orders of that kingdom are worse treated than those of Turkey.

Art. 33. *The Shoe-Black*. Dedicated to the Right Honourable Abraham Newland, Master of the Mint, &c. &c. &c. 4to. 3s. Cawthorn.

Black ballad: not because we deem the poem unworthy of a shoe-black, but because it displays only the abilities which might be found in such a station. Can we bestow one atom of praise, or even refrain from passing condemnation, on such a couplet as this?

‘Where late, for freedom from the liquid fire
Expos’d at elbow to salubrious air.’

Pray, Mr. Blackey, keep to your brush, and leave not your “useful calling” for this “idle trade” of wretched verse.

Art. 34. *Poems translated from the French of Madame de la Mothe Guion, by the late William Cowper, Esq. Author of the Task*. To which are added some original Poems of Mr. Cowper, not inserted in his Works. 24mo. pp. 132. 2s. 6d. Williams. 1801.

Of this publication, the editor, the Rev. Mr. Bull of Newport-Paguel, gives the following account:

‘One day amusing myself with the poetical works of the celebrated Madame Guion, I was struck with the peculiar beauty of some of her poems, as well as edified with the piety and devotion of which they are strongly expressive. I mentioned them to Mr. Cowper; and partly to amuse a solitary hour, partly to keep in exercise the genius of this incomparable man, I requested him to put a few of the poems into an English dress. Afterward, during my absence upon a journey, I received a letter, in which Mr. C. says, “I have but little leisure, strange as it may seem. That little I devoted for a month after your departure to the translation of Madame Guion. I have made fair copies of all the pieces I have produced on this last occasion, and will put them into your hands when we meet. They are yours to serve as you please, you may take and leave as you like, for my purpose is already served. They have amused me, and I have no further demand upon them.” On my return, Mr. C. presented me with these translations, to which he added the Letter to a Protestant Lady in France, and the poem on Friendship. The idea of printing them was afterwards suggested to Mr. C., and he gave his full consent, intending to revise them before I should send them to press.’

This revision of them, however, never took place, though the translation was made in 1782, and Mr. Cowper did not die till 1800; and we think that Mr. Bull is not justifiable in presenting to the world those productions which their author proposed to correct, but never had the opportunity of revising. Had Mr. Cowper deemed them worthy of publication, is it not natural to infer that he would have inserted them in some of the numerous editions of his works?—His omission of them proves strongly, (though in a negative way,) that he had no wish that they should appear; and was it for a friend

to introduce to the notice of the public, compositions thus circumstanced?

The poem on Friendship, *as here preserved*, contains very beautiful passages.—How just is the following reflection!

‘ A fretful temper will divide
The closest knot that may be tied,
By careless sharp corrosion;
A temper passionate and fierce
May suddenly your joys disperse
At one immense explosion.’

The author’s pleasantry and humour are shewn in this couplet

‘ The man that hails you, Tom or Jack,
And proves by thumps upon your back
How he esteems your merit,
Is such a friend, that one had need
Be very much *his* friend indeed
To pardon or to bear it.’

We have heard from very good authority that a corrected and improved copy of these verses is in existence: which, we trust, will find a place in Mr. Hayley’s promised Life of this fascinating poet. The lines addressed to a Protestant Lady in France are extremely pleasing, and calculated to awaken serious and important reflections. Some mortuary verses written for the town of Northampton, from the year 1787 to 1793, complete the contents of this little volume.

Art. 35. *A Poetical Tribute to the Memory of William Cowper, Esq.* Author of “The Task,” &c. By Thomas Chater. 8vo. 1s. Sibly.

Mr. Chater has here fully demonstrated his high and ardent regard for the memory of the excellent person who is the subject of his panegyric: but truth obliges us to add (and we are truly sorry for it,) that, by the very inadequate manner in which he has manifested that regard, he betrays his own total incapacity for the due execution of the task which, in an unfortunate hour, he undertook.—It is on such mortifying occasions as the present, that we are sometimes almost tempted, (for the honour of literature,) to wish for a *Licencer of the press*:—merely, however, to prevent those who cannot write, from printing and publishing their works.

Art. 36. *Mailda, or the Welch Cottage. A Poetic Tale.* By the Author of Theodora, or the Gamester’s Progress; &c. 8vo. 2s. White, &c. 1801.

We generally treat young sinners with all the lenity which we can muster: but the author of this little tale has had both time and experience sufficient to mature his faculties, and to emit a few more sparks of genius than we have found in his present production. The complicated story is but awkwardly told; since the characters, and their several histories, are too numerous to be impressed on the memory by so short a developement; and though the principles are good, the reflections are chiefly wise and well-known saws,—truths indisputable. So much for originality:—but the paucity of genius, and the want

of dexterity in guiding his Pegasus, are not all the points on which we have to speak. Verbal criticism demands our notice. The terms *unminished* and *unbitter'd* have not yet been licenced: nor have the words *increase*, or *prefaced*, been thus accented by any good writer of our acquaintance. We must also object to the long parentheses, one of nineteen lines, and another within it; to the copious and numerous mottos; and to the repetition of favourite epithets and phrases, before they have ceased to vibrate on the ear. The *full blue eyes*, and *full blue orbs* of his heroine, would probably not have been forgotten, if the reader had been less frequently reminded of them.—Finally, we have to observe that

The lofty tone Miltonic sudden sinks,
And Bathos true becomes, at sounds familiar
Of poor STORACE, and “*No song no supper.*”

FARRIERY.

Art. 37. *Observations on the Formation and Uses of the natural Frog of the Horse*; with a Description of a Patent artificial Frog, to prevent and cure contracted Hoofs, Thrushes, Cankers, and Sand-Cracks. By Edward Coleman, Professor of the Veterinary College, &c. 8vo. 1s. 6d. Johnson. 1800.

We have had occasion to mention Mr. Coleman's opinions respecting the natural structure and use of the frog, in our review of his work on shoeing horses*. His artificial frog is calculated, on the principles laid down in that work, to prevent the mischiefs arising from contracted hoofs, sand cracks, &c. We shall make no extract from a pamphlet which ought to be perused entire.

Art. 38. *The Principles of English Farriery vindicated*; containing Strictures on the erroneous and long-exploded System, lately revived at the Veterinary College; interspersed with cursory Remarks on the Systems of Solleysell, De Saunier, De la Fosse, &c. in which is fully displayed, the Superiority of English Farriery over that of foreign Nations. By John Lane, A. V. P. late of the 2d Regiment of Life Guards. 8vo. pp. 97. 4s. Egerton, &c. 1800.

We have here a warm attack on Mr. Coleman's Veterinary publications, and particularly on his method of shoeing. Mr. Lane is not the most polished antagonist, but he shews considerable acquaintance with the state of farriery, both in this country and in France; and with the principal authors who have treated of it. He particularly asserts the superiority of English farriers, in point of manual dexterity; to which purpose he has quoted some strong passages from La Fosse. Mr. Lane has undoubtedly shewn that he can wield the pen as well as the hammer: but, respecting the general merits of the question, we must say, *Non nostrum tantas componere lites*.

Art. 39. *Cursory Account of the various Methods of shoeing Horses*, hitherto practised; with incidental Observations. By William Moorecroft. 8vo. 2s. Nicol. 1800.

* See M. Rev. N. S. vol. xxix. p. 383.

This is an ingenious pamphlet; and the author's descriptions of different methods of shoeing are illustrated by neat wooden cuts. Mr. Moorcroft recommends the parallel shoes, for preserving an even tread, and for permitting the frog to come equally in contact with the ground; and, as he manufactures the shoes by means of machinery, he is enabled to sell them at a price which may bring them into general use.

Art. 40. *A Manual for the Use of Coachmen, Grooms, Osters, and all Persons concerned in the Care and Management of Horses; being a Selection of near Three Hundred Receipts for the several Disorders to which that noble Animal is subject. Together with some general Observations, and an Index.* 12mo. 2s. Boards. Lee and Hurst.

This is an useful collection of receipts, and a safe guide for the persons whom it is intended to serve. The analogy between the diseases of the human subject and the horse is very considerable; and there has been a corresponding resemblance in the mistaken treatment applied to them. Both parties, we hope, are now likely to be better managed.

AGRICULTURE.

Art. 41. *A Letter addressed to the Right Hon. Lord Carrington, President of the Board of Agriculture.* By Colonel Fullarton, of Fullarton, M. P. F. R. S. 8vo. 2s. 6d. Debrett. 1801.

This letter manifests that Col. Fullarton is not only a good practical agriculturist, but also a good political economist. His remarks on the mode of treating different kinds of soils, with the view of promoting the intention of the Board of Agriculture, as expressed in their subject proposed for a prize essay, are extremely judicious; and we should hope that they have not been unnoticed by those for whose benefit they were chiefly intended. His notions respecting the poor, and the provisions which ought to be made for them, harmonize very much with our own; and we warmly recommend them to the serious consideration of the British public. He is of opinion that the poor, and the small holders of common rights, are not justly nor judiciously treated in the usual mode of appropriating and inclosing wastes; and that these measures should undergo some important regulations. With the allotment of small portions of the common, or waste, means should be furnished for enabling poor families to be well lodged and completely subsisted; and then, by the aid of such allotments, the increase of them would afford the greatest benefit to the community: but otherwise these assignments to the poor will be soon purchased by the rich, and the cottagers will be thrown on the parish, to be kept out of the rates, instead of supporting themselves by their own industry. — The author gives the following pleasing picture of a cottager and his family:

‘ Having occasion for a drainer, I established an industrious man, of that profession, in a cottage, having a garden, and near four acres of sandy ground, adjoining to a rabbit warren. The ground not worth more than 10s. per acre; the house and garden worth 40s. more; altogether 4l. per annum. The man was bound, by contract, to

clear a main drain through a peat-bog, annually, at the rate of 7½; the remainder of the year, when not employed on his own four acres, he had work, at the rate of 1s. per day. He cropped above half an acre of sandy garden ground, with pease, beans, carrots, turnips, kail, cabbage, and potatoes; the last, in larger quantities than all the rest. He ploughed, manured, and sowed near two acres, with oats, barley, and wheat, for his own consumption. On the remainder, being sown grass, with the aid of fodder from his crop, he fed a cow, which yielded milk for the family. He brought up a calf, kept some pigs, and a stock of poultry. He raised always a portion of flax, which was steeped, and dressed at a flax mill, worked, and spun into yarn, by his wife and daughters. They afterwards bleached the yarn, and sent it to the weaver, by whom it was wove into linen for the family use. In addition, they procured, every year, a few fleeces of fine wool, which were manufactured into woollen, drapery, and clothed the family. Part of the worsted was knitted, into stockings. Of course, he was little at the mercy of high prices, or of fluctuating markets.

In this manner, and on these means, without any other assistance, he brought up a family, of four sons, and three daughters, gave them all complete education, fitted to their station, such as reading, writing, arithmetic, and book-keeping. Every one of the sons has gone into respectable employments. Each of them could purchase the fee-simple of the property on which he was bred.

This is the description of poor which we wish to see increased in the kingdom:—men who, though in humble situations, have yet a stake in the country, and are not secluded from the rest of their fellow-subjects by being immured in *monastic receptacles for poverty*.

RELIGIOUS.

Art. 42. *Advice to a Minister of the Gospel*, in the United Church of England and Ireland. Being a Continuation of Advice to a Student in the University. To which is added a Sermon on the Pastoral Care By John Napleton, D. D. 8vo. 2s. 6d. Sael and Co. 1801.

The terms of commendation, in which we noticed Dr. Napleton's *Advice to a Student*, (see M. R. vol. xxi. p. 214), are equally due to this professed continuation of that work; which we recommend to the serious perusal of every clergyman of the established church in the united kingdom. Learning, experience, good sense, & knowledge of the world, a concern for the honour and usefulness of the clerical character, and for the general interests of religion and good government, unite in the advice which he here gives to *Incumbents*, on their proper duties and studies, and to *Archdeacons, Deans, Chancellors of Dioceses, and even to Bishops*, on the conduct required of them in their respective offices. The whole is managed with so much ability, that, even where we do not yield a full assent to the author's opinions, we admire his genius and his power of argument. No one has more neatly explained the clerical system, and the duties appertaining to it. Having been an examining chaplain, he has had opportunities of witnessing the frequent incompetency of those who present themselves as candidates for holy orders; and his recommendation of

learning,

learning, as an essential qualification of a clergyman, is so truly excellent, that we must find space for its insertion.

I have one particular caution to offer to my successors in this office (examining chaplain): namely, to resist all solicitation to recommend to the Bishop an imperfect candidate for deacon's orders, in the hope of finding him, by promised intervening diligence, better qualified at his examination for priest's. Generally, the same causes will continue to operate. If they do not, the candidate will be substantially benefited by being postponed to a future ordination: as he will then be ordained a deacon with satisfaction and honour. If they do, the examiner will have escaped a very painful dilemma; of being driven by one error to commit a second; or of advising to leave the candidate a deacon, excluded from secular employments, in a situation neither beneficial to himself, nor useful to the church.

Literature, and sacred literature in particular, is requisite to a clergyman, not only as it is necessary to the edifying discharge of his pastoral duties, but as it forms, and shews, the turn of his mind; influences, and implies, his habit of life; fills up his time; makes him happy at home; detains him from pursuits improper in kind, or excessive in degree; keeps his mind in a due tone for every work of his ministry. In every view, it is a vital part of his character. If parents will persist in destining a child to this profession, whether qualified or not by nature and industry, and finally offer him in vain, the disappointment is severe, but might have been foreseen: and if a young man, with the advantage of an expensive education at the university, will not, from the dawning reason of sixteen to the more enlightening age of three and twenty, under the assistance and warnings of his tutors and governors, look forward, and qualify himself, the disappointment is alike severe; but he is less to be pified than his partial, and frequently ill-advised parents: and I trust that I do not exceed the bounds of candour and humanity, if, for the discouragement of dissipation and idleness, I wish you hereafter to say to such a one, in the language (nearly) of the Roman Consul: "*Adolescentes corrupti desidiosa ita ætatem agunt, quasi honores nostros contemnant: ita hos petunt, quasi honestè vixerint. Nam illi falsi sunt, qui diversissimas res pariter expectant, ignavia voluptatem, et præmia virtutis.*"*

A sermon on *the pastoral care*, from John, xxi. 17. is subjoined, preached at Lambeth chapel at the consecration of Dr. Buckner, Bishop of Chichester. It is ingenious, and suited to the occasion.

Art. 43. *The Millennium: or cheerful Prospects of the Reign of Truth, Peace, and Righteousness; and serious Reflections on the Commencement of the New Century:* Two Discourses, preached, the first on Nov. 5, 1800, and the second on Jan. 4, 1801, in the New Chapel, Bridport, with Notes. By Thomas Howe. 8vo. 1s. 6d. Longman and Rees.

The Apocalypse is dangerous ground for divines; yet they love to venture on it, and often build lofty doctrines on the precarious interpretation of its mysterious passages. Though Sir Isaac Newton

amused himself with it, Calvin would not undertake its elucidation ; which Scaliger considered as a proof of his wisdom. The predication in which this book stands, and the use to which mystics and enthusiasts have applied it, should caution enlightened theologians against making it the basis of any singular dogma ; especially those who contend for the purity of the *gospel* system, and for the reign of pure uncontaminated truth. Mr. Howe has chosen for the text of his first sermon, (preached in commemoration of what is vulgarly called *the Gunpowder Plot*, and of the Revolution in 1688,) Rev. xi. 15.; and, in speaking of the book from which it is taken, he tell us that ' it contains prophecies of events of the most important and interesting nature, which are to succeed each other from the first century to the end of the world : ' but there is nothing to justify this position ;—any more than his assertion, towards the end of his discourse, that the expression " for ever and ever " signifies a thousand years, more or less, in which the saints are to reign with Christ on earth, in purity, righteousness, and benevolence, previously to the general resurrection.

Our Saviour and his apostles predict the final prevalence and triumph of Christianity, and elevate our faith to a future world, in which persevering piety and virtue will be rewarded : but do they speak of a millennial state, or of the coming of Christ, except it be to the final discriminating judgment ? If such a doctrine be not clearly and unequivocally revealed in the plain and uncontroverted books of the New Testament, ought preachers to abet the cause of mystical interpretation, by strained comments on, and doubtful inferences from, the book of Revelation ?—Mr. Howe's subsequent remarks on the diffusion of knowledge, liberty, peace, and righteousness, by means of Christianity, are judicious ; and we lament that his observations are not all of this description.

The second discourse, on the commencement of the new year and new century, from Eccles. i. 4. is serious, impressive, and practical ; calculated to awaken the heart to piety and benevolence, to confidence in Divine Providence, and to a virtuous improvement of this transient life. These are the proper topics of Christian exhortation, and are of much more importance than conjectures on the fall of the Ottoman empire, and the restoration of the Jews.

Art. 44. *Hints on Sunday Schools, and Itinerant Preaching*, in a Letter to the Bishop of Rochester. By John Townsend. 8vo, 2s. Matthews, &c.

Conscious guilt alone could have restrained any body of men from making a defence, when attacked by such charges as the Bishop of Rochester has preferred against the Methodists *. The Bishop, indeed, in the ardour of his zeal, seems so completely to have lost sight of all prudence as a polemic, and to have laid himself so open to assault in return, that there cannot be much glory, because there is not much difficulty, in disarming him. Mr. Townsend first enters the lists ; and though, as he tells us, ' his head never slumbered beneath a collegiate or an academic roof,' so confident is he of the truth and justice of his cause, that he anticipates the triumph which

* See p. 32-33. of this Review.

he must obtain over the learned and dignified ecclesiastic. This itinerant preacher boldly accuses the Bishop of having 'taken up inveterate suspicion and prejudice,' of 'writing under the influence of an irritated mind,' of 'casting injurious aspersions,' of 'calling names,' of using 'vulgar and low phrases,' and 'of exhibiting a temper unworthy of the cause which he professes to plead.' Yet he assures us that it is 'not his intention to irritate or provoke, but if possible to soften and convince.'

After having quoted the passage which we extracted in our account of the Bishop's Charge, he adds; 'this passage is a downright libel of the worst kind, because it is against whole bodies of men, who have no other medium left of doing themselves justice but by *doing it down*; and this I have no doubt they will do effectually in time.' He vindicates the superintendents of sunday-schools from the charge of Jacobinism; and for the ladies, who have benevolently taken these institutions under their care, he thus pleads: 'We intreat your Lordship to let our wives and daughters enjoy, unmolested, the luxury of doing good. It is, indeed, their delight; and the whole of their plans and exertions tend to better, in various ways, the miserable condition of the ignorant and distressed poor, and have no more to do with any thing political than with the problems of Euclid. It is much more pleasant to see them employ all their leisure time thus, than that they should spend it, where too many do, (to their own ruin) at card-tables, theatres, and masquerades.'

Of *itinerant preaching*, Mr. T. is a very warm advocate. He, indeed, is surprised that odium should attach to it, as it is in itself 'an antient and honourable service;' and since, he says, 'the very angels, if the Lord would employ them, would count it honour to come down, and in the character of itinerant preachers, go from city to city, and from village to village,' he is of opinion that 'it would be no disgrace either to the clergy, or even to the bench of Bishops, if they would become itinerant preachers.' He is even so *unpolite* as to tell the latter that they *ought* to become such.

Mr. T. concludes with requesting his Lordship to review his late Charge, to think more favourably of the *non-descripts*, and to exchange his enmity towards sunday-schools for good will. The late exertions of itinerancy are explained to have arisen, not from Jacobinism, but from the Missionary Society.

Art. 45. *An Apology for Sunday Schools.* The Substance of a Sermon preached at Surry Chapel, Feb. 22, 1801, for the Benefit of the Southwark Sunday Schools; with incidental Remarks on the late Charge of the Right Rev. the Lord Bishop of Rochester. By Rowland Hill, A.M. 8vo. 1s. Williams.

Behold another champion in the field, prepared to vindicate the honour of the injured damsel *Methodista*! This knight evinces himself well qualified for the combat; and it has amused us to observe the playfulness, as well as the dexterity, of his onset. Mr. Rowland Hill, like Mr. Townsend, is in earnest, but he is also sarcastic; being, as we suppose, of opinion that, though his adversary be a right reverend prelate, he ought, in the present instance, rather to be 'touched and shamed by ridicule,' than gravely refuted. While

he boldly challenges the enemies of methodism 'to produce *one single instance of one single school* in which *one single hint* of a political nature has been ever dropt, he advises the Bishop to reconnoitre their conduct, that their rebellious *pranks* may be detected. 'And (he proceeds) if any persons wish to know our *tricks* and plans, by a very trifling subscription, they have it always in their power; and they may depend upon it they will be sworn to no secrecy. While through the medium of the press we take a considerable deal of pains, and sustain a large expence to make as public as we can all the places of our *secret meetings*: and at the same time without the least reserve, we promiscuously hand about the names and places of abode of the subscribers and active managers of all our *jacobinical, deistical, atheistical* concerns.'

In the dedication of the discourse, Mr. Hill proceeds in the same strain; and if he suspects his Lordship of 'malevolence,' he takes good care to keep himself from being out of temper. "There is *much ground for suspicion* (says the Bishop) that *sedition and atheism* are the real objects of these institutions—this *I know to be a fact*." To these words, the following comment is attached: 'Though it may seem a little unintelligible that his Lordship should have *much ground to suspect* what he *knows to be a fact*, yet the charge is pushed completely home, without hesitation. These *atheistical Jacobinical hypocrites*, who deserve a halter as much as ever his Lordship deserved a better bishopric—so soon as he has proved the charge, and surely there can be no great difficulty, if, as he says, he knows it to be 'a matter of fact':—these abominable infidels in disguise, I say, are receiving Bibles and Testaments from the Sunday-school Society, that they may *disseminate infidelity* by distributing and explaining *the book of revelation!* And does this need a confutation?"

Mr. Hill corrects Mr. Townsend (very properly) in considering the Bishop's epithet *non-descripts* as relating to dissenters. 'Dissenters (says he) are *descripts*;' by *non-descripts*, he means, such as are not avowedly dissenters.' In this class, Mr. Hill appears to stand; since he professes himself to be a member of the established church, and yet his mind is evidently actuated by the principles of dissent. With this matter, however, we have no concern.

POLITICS, &c.

Art. 46. *The Boa Constrictor*; an Illustration from the Natural of what has appeared in the Political World: suggested in Consequence of a Recollection of Events which was provoked by a late French Semi-official Publication in the *Moniteur*. Concluding with some Considerations respecting Negotiation. By the Author of the Theory of Chess. 8vo. 1s. Hatchard. 1801.

We remember to have read surprizing accounts and wonderful stories, gravely told by travellers and serious writers, of a most enormous serpent, in the East Indies, called the *Anacondo*; which, it is said, swallows the great Tiger-royal, and even the Buffalo, and other large animals;—having first twisted itself round them, broken all their bones, and then anointed them with a *slaver* which accelerates the descent of the huge mass into the ravenous maw of the devourer. —By the *Boa Constrictor*, we suppose, the author of this little pamphlet

phlet alludes to the same gigantic serpent; whose horrid powers and modes of destruction he compares with the conduct of the French Nation. They have, he observes, accustomed themselves, like the B. C. to *slaver* over with delusive professions, and then to devour, the neighbouring states and countries which, in the course of the revolutionary war, have had the misfortune of being subdued by them.

From this comparison of the two monsters, the writer deduces some prudential inferences and cautionary hints to Great Britain, and the other powers which seem, at the present juncture, disposed to *negotiate* with such an adversary; warning them to beware how they treat with, and trust to, the good faith of the *Boa Constrictor* of Europe.

Art. 47. *Considerations on the Momentous Subjects of Peace, and War, and Negotiation*, in Answer to the Pretensions of France. By Mr. P. Pratt. 8vo. 2s. Hatchard. 1801.

Though Mr. Pratt appears to have an overweening partiality for metaphors, he may not perhaps be much gratified by being told that, if his pamphlet contains any of the ore of good sense, it exists under a thick and heavy superstratum of impure language. He talks of 'hurling vulneration,'—of 'a temporary *grasp* vanishing from the test of nice and equitable assay,'—of 'distillations of slaughter,'—of 'removing an implication that the distributions to devotion are not uniform,'—of 'heart-felt effusions from the bosom of conviction,'—of 'the head quarter of civilization,'—of 'power descending to absolute imparity,'—and of 'giving whirling ruin to circumscription.' It is impossible, however, by quoting such scraps of Johnsonian affectation, in which the abstract is always employed for the concrete, to give an adequate idea of the viciousness of Mr. P.'s style, and to expose it to sufficient reprobation. He apologizes, indeed, for his long periods, and particularly for the first, which extends through more than *two pages*: but we cannot perceive that it could not have been 'broken down' into several smaller sentences, without injuring its sense and force.

To leave the *language* and come to the *ideas* of Mr. Pratt;—he is of opinion with the author of the tract mentioned in the preceding article, that the French Republic may be compared to the immense serpent of the island of Ceylon, called the *Boa Constrictor*; and, attempting a majesty of style, he calls on the powers of Europe to watch this huge political serpent, which breaks the bones and sucks the marrow of kingdoms: he advises France to abate of her lofty pretensions; and, in case of refusal, he exhorts the powers of Europe to unite in a *third coalition* against her. This is a subject for Kings and their ministers to review, and to them we refer it.—In his address to his countrymen on the subject of negotiation, he observes that, 'after the signal victories with which Almighty God has blessed us, he dares not propose any other basis than that of mutual retention or mutual restitution.'

MISCELLANEOUS.

Art. 48. *Memorials of the Family of Tufson, Earls of Thanet*; deduced from various Sources of authentic Information. 8vo. pp. 179.

170, with Plates. 7s. Boards. Printed by the Author, R. Pocock, Gravesend; and sold in London by Robinsons. 1800.

Mr. Pocock appears to have taken considerable pains in tracing the genealogy and connections of this honorable family. We are informed that

‘ From Tufton, a manor in the parish of Northiam, in the county of Sussex, is deduced the name of the antient family of the Earls of Thanet. It was at an early period after the Conquest the inheritance of their ancestors; from whence they spread into Kent, and afterwards by alliances of the most honorable kind into the northern counties; and although prior to the time of Henry the Fourth, there is a want of regularity in the descents as given upon the remaining evidences, yet proceeding through the long space upwards as far as the time of King John, there are extant several notices which sufficiently evince the worth and antiquity of that family.

‘ Their seat in Sussex, originally written *Toketon*, then *Tecton*, and latterly *Tufton*, was, as it yet remains, always in the principal branch, and it is at this period not to be ascertained on what condition they came to the possession of this district, where they must have resided as on the principal manor, if not the only one for several centuries, and according to the prevailing custom in the early state of surnames, its owners are distinguished by that of their lands, with the usual *de* prefixed, a proof of their having been ever esteemed among the gentry of the kingdom.’

It is, however, with Simon de Tufton of Northiam, that the regular pedigree of the family begins, in the reign of Richard II. Sir Nicholas Tufton, from whom the present Earl is the ninth in descent, was the first of the family who became possessed of the Baronage; having been, by letters patent bearing date November 1, 1626, in the 11d year of Charles I., advanced to the dignity of a Baron of the realm, by the title of Lord Tufton, of Tufton in Sussex; and also, on August 5, 1628, created Earl of Thanet.—Of the family seat at Hothfield in Kent, we have the following account;

‘ John Tufton was seated at Hothfield in Kent, so early as the time of Henry the Eighth, and as this has been since the principal residence of this eminent family, it will not be improper to enter rather at length into its history, particularly as it was held by a remarkable tenure of the arch-bishops of Canterbury, who, in the high officers engaged about them on the day they were enthroned, imitated the king upon his coronation. This place with many more had belonged to Odo, bishop of Baieux, and on the disgrace of that extraordinary man, it was bestowed upon Fulbert, who held certain manors in barony for the defence of Dover-castle; he resided at Chilham, and was bound to support a certain number of soldiers for that purpose. From him it descended to Bartholomew lord Badlesmere, being held by grand serjeantry of the Lord archbishop of Canterbury, by doing the office of chamberlain on the day of his enthronization; for which service he was entitled to the furniture of his bedchamber. Upon Walter Reynold arriving to this eminent station, which happened when the Lord Badlesmere had been in possession of Hothfield about eight years, he made his claim to the office of chamberlain in right of his

his manor, before Gilbert de Clare, earl of Gloucester, high steward to the archbishop, who held a court for hearing and determining claims on the occasion; when he was admitted by the earl, and also by the consent of the archbishop performed the service: but there seems to have been a demur concerning his fee; for by a verbal agreement between him and the archbishop, he was to return after the festival, the bed, curtains, and furniture, with the vessels of the chamber, (likely of silver,) until he had made it appear by an authentic deed, or by reason and justice, that he was entitled to these advantages in right of his possession at Hothfield, a condition he faithfully abided by; and it seems to have been an honor (such was the affection borne towards the church in those times) for one of the richest barons in Kent, to wait on the archbishop in his chamber, and to serve up the water and towel for the washing his hands.

* This manor having afterwards fallen to the crown by the attainder of Thomas lord Roos, it was granted in the eighteenth year of Edward the Fourth to Sir John Fogge, of Repton, for life; with whom it continued to the seventeenth year of Henry the Seventh; and was then in the crown till Henry the Eighth granted it to John Tuston, Esq. of Northiam, towards the end of his reign.

Art. 49. *Ancient Metaphysics.* Vol. VI. 4to. pp. 360. 15s. Boards. Cadell jun. and Davies. 1799.

To readers who are conversant with the well-known writings of the very singular philosopher, (now no more!) whose last publication lies before us, it will be sufficient barely to announce this volume, as the termination of his celebrated "*Ancient Metaphysics*."—Like the preceding parts, it contains the fruit of much (perhaps unparalleled) thinking, extensive yet profound.

This concluding volume, as Lord Monboddo expressly terms it in the introductory part, is professedly theological, though it is strongly tinged with metaphysics; and it will doubtless afford much of that uncommon species of literary instruction and entertainment, for which all the works of this extraordinary and learned writer have been justly celebrated.

Art. 50. *Literary Miscellanies*; including a Dissertation on Anecdotes. A new Edition, enlarged. By J. D'Israeli. 12mo. 4s. Murray and Co. 1801.

In our Review for December 1797, p. 374, we noticed, not slightly, the first edition of this work;—which, says the very *patient* author, has *long* been out of print; but, being still enquired after,* he found himself encouraged to present it once more to the public. These literary miscellanies, therefore, now make their re-appearance in a neat pocket edition; introduced by an apposite quotation from BAYLE, in commendation of such "*instructive recreations*."—Whether or not the favourable passage, so happily selected, accompanied the first edition, we do not now recollect.

Art. 51. *Romances*; second Edition corrected. To which is now added, a Modern Romance. By J. D'Israeli. 12mo. 4s. sewed. Murray and Highley. 1801.

The re-publication of these ingenious pieces [for the first appearance
of

of which, see M. R. vol. xxix. p. 121,] is prefaced by some well written remarks on Persian poetry; of which the author professes himself to be a great admirer. He is not blind, however, to the defects of the Oriental Bards, for he briefly acknowledges and points them out: but at the same time, he concludes his critical observations with a warm encomium on the characteristic beauties of Ferdusi, Sadi, Hafiz, and Jami.

Art. 52. *An Analytical View of a Popular Work, on a new Plan, entitled Fountains at Home, for the Poor as well as for the Rich*; with an Appendix, containing a short Address to the Colleges of Physicians and of Surgeons at Dublin. By William Patterson, M.D. &c. 8vo. pp. 54. Dublin. 1800.

This pamphlet may be considered as the prospectus of a work which the author has in contemplation. From the *Table of Contents*, with which we are here presented, it promises to embrace a great variety of objects, though the state of Ireland seems to form Dr. Patterson's principal scope. We have to acknowledge, at the same time, the favour of two printed letters, transmitted by Dr. Patterson, in which he proposes to destroy the contagion of yellow fever by means of heat.

We shall be glad to see the large work, promised* by Dr. P. The present pamphlet, though rather desultory, bears evident marks of reading and reflection; and he appears to be influenced in his undertaking by motives of real patriotism and benevolence.

Art. 53. *Essays, Philosophical and Chemical*. By a Gentleman of Exeter. 8vo. 3s. sewed. Cawthorne.

These essays are here neatly re-printed from a collection published by the Society of Exeter, analysed in our xxiid vol. N. S. p. 1, &c. In course, we can only notice this as a new edition of these well-written and amusing papers; adding that the subjects of them are as follow: *Cursory Remarks on the present State of Philosophy and Science*;—*Reflections on the Composition and Decomposition of the Atmosphere, as influencing meteorological Phenomena*;—and *Observations on Light, particularly on its Combination and Separation as a Chemical Principle*.

CORRESPONDENCE.

A learned Correspondent, James Tate, M. A. of Richmond, Yorkshire, has sent us the following illustration of Mr. Porson's note on Euripides, *Hecuba*, 347. "*Quid velim, melius fortasse intelligitur, si dicam, paucissimos apud Tragicos versus occurrere similes Ionis initio,*

Ἀτλᾶς ὁ χαλκίῳσι νότοισι θυραίοις.

* *To the EDITORS of the MONTHLY REVIEW.*

GENTLEMEN,

THE Monthly Review having been now for a long series of years the occasional depository of criticisms the most acute and profound on the Greek language, I take the liberty of offering a few metrical observations in reference chiefly to a remark in M. R. March, 1800, p. 336.

In the place above cited, the M. R. says, 'Mr. Porson never intended, we may confidently assert, that his Canon (vide *Hecub.* v. 347.) should be considered as relating to iambic verses in general.' And in confirmation

tion of this remark, the reader is sent to the *Ion*, as containing in v. 1. 22. 65. 278. 318. 362. 366. so many exceptions to Mr. Porson's Canon; and so indeed, at first sight, they seem. But let the Canon be divided into two, and worded as follows; and the exceptions will disappear in the last five instances. In the first two, a small correction will set every thing right.

Canon I. When an iambic verse ends in a trisyllable or quasitrisyllable, (as *τω θεω γαρ EN ΦΙΑΩΝ*, or *σπαργασοις θ' ΟΙΣ EXΕΣ*) the foot preceding the last is in the tragic writers very rarely if ever a Spondee, in the Comic it is very frequently so.

Canon II. If a monosyllable precede the trisyllable or quasitrisyllable with which the verse ends, so that the last four syllables form as it were, when pronounced, one quadrisyllabic, or two disyllabic words, then the foot preceding the last may be indifferently a Spondee or an Iambus.

Under this latter Canon, vv. 65. 278. 318. 362. and 366. evidently fall; and to the former, vv. 1. 22. afford only an apparent exception.

V. 1. *Ατλας ὁ χαλκίωσι νωτοῖς σφαιροῖν*,
read *Ατλας ὁ νωτοῖς χαλκίωσιν σφαιροῖν*.

V. 22. *Φρουρῶ παραζευξάσα φυλακᾶς σωματός*,
read *Φρουρῶ παραζευξάσα φυλακῆ σωματός*.

So the context too demands, and so, before I had the opportunity of seeing Mr. Porson's decisive note, ad Phæn. v. 1419. I had corrected the verse in Mr. Wakefield's edition of the *Ion*.

The only real exception to the 1st Canon, which I have hitherto met with, is in the Phæniassæ, v. 759. *αμφότεροι ἀπολειφθεν γαρ οὐδεν βατιροῦ*, a verse certainly deficient in harmony, and which must be considered as one of those very few negligent verses *quos incuria fudit*, or perhaps as a sacrifice of sound to sense, since it seems almost impossible by any other words to convey the same ideas in the same portion of metre.

The Canon in Anapaestic metre, which seems hitherto to have escaped remark, is the following:

In regular systems of Anapaestic verses in the Tragic writers, the *Versus Paræmiacus* is then only legitimate, when it is constructed similarly to the concluding *Hepthemimes* of an Heroic Verse, and like that preferring, before the final syllable, an Anapaest to a Spondee.

The observations on the note in the *Hecuba* we submit to the learned Greek Professor.—To the Canon which banishes *Dactyls* from the first place of *Paræmiacs*, we cannot subscribe assent, till Mr. Tate produces every Dimeter Catalectic Anapaestic from every one of the Tragedies and Comedies, corrected *without violence*, and reduced to his scheme by *transposition*, or *unstrained alteration*.—Mr. T. cites instances from *Æsch. Prom. Eumenid.*—*Eurip. Med. Alceat. Ion. Suppl.*—*Soph. CEdip. Col.*—Should he continue his search, he will find (if we mistake not,) many more *unbending* verses than he seems prepared to expect.

Since the above was written, Mr. Tate's second letter has arrived: We still recommend to him a thorough perusal of the Greek Plays, Tragedies, Comedies, and Fragments; and to insert his Canon, and his instances, if he then supposes it to hold good, in the work which he mentions as likely to appear.

To our learned Correspondent's proposed corrections, even if the necessity of them were demonstrated, we could not wholly agree.—

Nothing

Nothing must be left for future gleaners. Every individual line, or authority, must be brought forwards fairly; and then it will be wise to remember that the *Paramiacus* is a verse of the Anapestic order, and not of the Dactylic.

We are informed by a literary friend now on the Continent, that Prof. WOLF, the learned editor of HOMER *, has lately published an edition of the four Orationes attributed to Cicero, viz. I. *Post reditum in Senatu*. II. *Ad Quirites post reditum*. III. *Pro domo sua*. IV. *De Haruspicum responsis*:—in which his chief object is to examine the contending arguments of Markland and Gesner; and to subjoin an ample commentary, including a discussion of all that respects Ciceroian latinity, the oratorical art, and the truth of the several facts mentioned in the orations.

The work has not yet reached us: but, when we have obtained a copy of it, we shall probably be able to afford our readers an ample view of this interesting discussion.

* See App. to vol. xxi. N. S. p. 563, and to vol. xxii. p. 523.

In answer to the letter of 'an old Surgeon of London,' respecting the application of Spirit of Turpentine to Burns and Scalds, we must observe that we did not recommend Mr. Kentish's practice on the authority of his pamphlet alone, but that we have experienced the safety and efficacy of the method. If the 'Old Surgeon' will lay aside prejudice, and make *one* fair trial of this plan, we think that he will be convinced of its superiority over any application of cold.

We must request Dr. Montucci to excuse us from interfering, in any manner, in a controversy in which we have no concern; and to consider that we cannot, with any propriety, give an account of a publication which relates to a prior work, before that work itself has made its appearance in our pages.

Dr. Patterson's note is received; and he will find a brief account of the pamphlet to which it relates, in our present Number (p. 110.). We are sorry that accident has caused it to be so long overlooked.

Mr. Parkinson may be assured that the note to a Correspondent, of which he speaks, did not relate to him:—on the contrary, we profess ourselves conscious that he has some right to complain of the trial to which we have (unintentionally) subjected *his* patience.

We offer our thanks to a friend at Manchester, for his second communication on a certain point of controversy: but we cannot properly avail ourselves of unpublished evidence; and, above all, we must take care not to become parties in the dispute.

✂ Want of room obliges us to postpone the notice of other letters.

*** The APPENDIX to Vol. XXV. N. S. of the MONTHLY REVIEW is published with this Number, as usual, and contains accounts of a variety of important FOREIGN BOOKS.



THE MONTHLY REVIEW,

For OCTOBER, 1801.

ART. I. *An Essay on Sculpture: in a Series of Epistles to John Flaxman, Esq. R.A. With Notes. By William Hayley, Esq.* 4to. pp. 358. 1l. 7s. Boards. Cadell jun. and Davies. 1800.

THE productions of Mr. Hayley's Muse have afforded us many pleasing opportunities of criticism: since, whatever may be supposed by bad writers, and bad readers, (two numerous classes!) there is more satisfaction in commending a good book, than in dispraising an indifferent one; and when we meet with so much learning, sense, and temper, as are exhibited by the author before us, nothing can be more unsought, or more disagreeable, than an occasion of detecting faults.

We must indeed regret the strain of melancholy which pervades this composition, because it appears to be the result of severe domestic afflictions. To the author's own infirm state of health, which is feelingly delineated in the opening of the poem, has been added the death of a favourite son, the pupil of Mr. Flaxman, at a period when his talents were beginning to be developed, and to exhibit a fair promise of excellence. Under such circumstances, the strength of a poet is unavoidably impaired; since, as Tickell remarks in his beautiful elegy on Addison,

“ Slow comes the verse which real grief inspires:
What mourner ever felt poetic fires?”

It is, therefore, with no common degree of sympathy, that we proceed to a more particular examination of this performance.

The first epistle congratulates Mr. Flaxman on his return from Italy; and contrasts the languishing state of the writer, and the depressing effect of indisposition, with the successful efforts of his friend during his residence at Rome:

‘ How oft, dear active friend! in listless pain,
Thy distant invalid has wish’d in vain
For strength, thro’ Roman fanes with thee to rove;
And pausing near the Capitolian Jove,
In scenes with solemn inspiration fraught,
Catch the strong impulse of inspiring thought!
‘ While thou, in mental luxury refin’d,
Hast nobly banqueted thy thirsty mind

With all that art could yield, or taste require,
 As purest aliment to Fancy's fire—
 While thy unwearied hand, and soul elate,
 Have jointly toil'd to copy or create,
 My suffering mind would to itself complain,
 Too conscious that the cloister of the brain
 Seem'd like a fabric ransack'd by a Goth,
 Whose cruel enmity and wasteful wrath,
 Defacing all that Truth had treasur'd there,
 Left but a cell for Sorrow's silent prayer.
 But hence, desponding Sloth! hence, dull Complaint!
 That make even Pity's wearied spirit faint!
 If Health, like Fortune, with capricious sway
 Cliquers the course of life's contracting day,
 From each coy goddess with delight we learn,
 Long absence but endears the late return.'

The second epistle contains an account of the origin of sculpture. On this subject, Mr. Hayley rejects the common traditions and opinions, and with just simplicity supposes that,

'No single region of the spacious earth
 Can take exclusive pride in Sculpture's birth.
 Wherever God, with bounty unconfin'd,
 Gave man, his image, a creative mind,
 Its lovely children, Arts mimetic, sprung,
 And spoke, through different lands, in every tongue.'

This opinion is much strengthened by the discoveries of our navigators in the islands of the South Sea. From the monuments observed on Easter Island, particularly, we are enabled to advance a step farther, and to conjecture that the fabrication of colossal images of the dead may be among the rudest efforts of sculpture.

The progress of the art, from Egypt to Greece, is here well delineated, and the merits of some of the early Grecian sculptors are appreciated with much knowledge and ingenuity.

The character of Dædalus has exercised Mr. Hayley's powers, and especially the fable of his moving statues. We cannot but think that Palaphatus has given the most rational solution of this question. According to him, the first sculptors represented their figures with the limbs close; *συμπεφυκτάς ἔχοντα τοὺς πόδας*. Dædalus made his statues in the attitude of advancing one foot, and it was therefore said that they walked.

In the third epistle, the Greeks cultors are enumerated. We extract the animated description of Phydias's Olympian Jupiter;

'Genius of ancient Greece! whose influence ran
 Through every talent that ennobles man;
 O'er bright ideas taught the mind to brood,
 And feast on glory, as its native food;
 Bear me, in vision bear me, to that ground,
 Where Honor's fervent spirit breath'd around;

Where

Where gay distinction held the garland high,
And thy prime wonders gladden'd every eye!
Thy favourite precincts at my wish appear,
Where hymns of triumph fill'd the raptur'd ear;
My eager feet have pass'd thy olive grove,
And touch'd the threshold of Olympian Jove!

' Lo, in calm pomp, with Art's profusion bright,
Whose blended glories fascinate the sight,
Sits the dread power! Around his awful head
The sacred foliage of the olive spread,
Declares that in his sovereign mind alone
Peace ever shines, and has for ever shone.

' The temple's precious precincts scarce unfold
The grand quiescent form of ivory and gold.
The symbols of his sway, on either hand,
Delight and reverence at once command.
Behold his right sweet Vict'ry's image bear,
Form'd, like his own, elaborately fair:
His left a sceptre with rich light invests,
And tranquil on its point his eagle rests;
His sandals are of gold; a golden robe
Proclaims his empire o'er the living globe:
For earth's mute creatures, on his vest are seen
With flowers, and first the lily as their queen.

' The rich compartments of the throne unfold
Ivory with ebony, and gems with gold:
Adorn'd with images, four massive feet
Sustain the radiance of the regal seat.
Around each foot four joyous forms advance,
Four Vict'ries, weaving a triumphant dance.
The throne's high summit shapes more lovely still
With animation and with beauty fill:
The Graces here upon their parent wait;
His filial Seasons there, and both in triple state:

' The labouring eye, with admiration smit,
Labours in vain each figure to admit,
That blended arts conspiring toil'd to raise
On this grand spectacle, surpassing praise.
Yet here all eyes, the skilful and unskill'd,
Impress'd with awe, and with amazement fill'd,
From the blest features of the god imbibe
Such thoughts as meliorate his mortal tribe.'

This epistle, with the copious and learned notes annexed to it, will furnish a rich feast for the classical scholar: since it treats of those topics which, on every repetition, preserve their power of enchantment. To the consideration of the arts and manners of Athens, our minds invariably return with affection.

Epistle IV. relates to the Etrurian artists, whose obscured fame is justly and poetically regretted. The robbery of Greece, by the Roman arms, is delineated with great felicity:

'Bright Excellence! 'tis thine, in evil days
 To joy in Enmity's extorted praise:
 So Grecian Art, her parent state undone,
 From Roman pride reluctant homage won.
 Rough was his worship paid to Sculpture's charms,
 That injur'd beauty in a ruffian's arms!
 Who view'd her grace with uninstructed eyes,
 Proud to possess, though wanting taste to prize.
 Gods! how regret and indignation glow
 When History, mourning over Grecian woe,
 Describes the fortune of each splendid fane,
 Where Sculpture seem'd with sacred sway to reign!"

The sixth line, in this passage, has peculiar merit.

As the author advances to the brighter periods of the art in Rome, he characterizes the chiefs who overthrew the republic. His view of the favourable side of Cæsar's character, viz. his love of the arts, deserves the reader's attention:

'A mightier victor, of a nobler soul,
 Yet darken'd by ambition's dire control,
 The fearless Cæsar, of indulgent heart,
 Shone the protecting friend of Grecian art.
 Of tyrants most accomplish'd and benign,
 'Twas his in genius and in taste to shine.
 Could talents give a claim to empire's robe,
 He might have liv'd the master of the globe:
 But pride imperious that o'er-leap'd all bound,
 Deserv'd from Roman hands the fate he found.
 Yet shall the despot, though he justly bleeds,
 Receive the praises due to graceful deeds:
 His rival's statues, by mean slaves disgrac'd,
 He in their public dignity replac'd.
 His zeal for Sculpture, and his liberal care
 To force the grave her buried works to spare,
 To guard the rescu'd, and the lost to seek,
 Let Corinth, rising from her ruins, speak.
 That brilliant queen of Arts, at Cæsar's word,
 Sprung from her ashes, like th' Arabian bird:
 Her great restorer, fond of glory's blaze,
 Sought to be first in every path of praise;
 And found, in favour'd Art's reviving charms,
 Delight superior to successful arms.
 Had the firm Brutus not pronounc'd his doom,
 His power to fascinate relenting Rome,
 His varying genius, fashion'd to prevail
 In peaceful projects of the grandest scale,
 Would o'er the state have thrown such dazzling light,
 And foil'd resistance with a blaze so bright,
 Freedom herself, enamour'd of his fame,
 Might have been almost tempted to exclaim,
 "I see his benefits his wrongs transcend,
 "And all the tyrant vanish in the friend!"

After a rapid view of the progress of sculpture under the emperors, this division of the work closes with a description of Hadrian's villa, and a poetical vision of the fortunes and decay of Rome and Constantinople.

The fifth epistle treats of the effects of sculpture in softening and polishing the manners of men. Here, we confess, more is attributed to the moral influence of art, than we can readily believe to be due to it. The union of taste with licentiousness is a fact too commonly observed to admit of dispute.

Epistle VI. and last is occupied entirely with the subject which seems to have so forcibly possessed the author's mind, during the progress of this composition;—the merits, and the sickness of his son. It is also decorated with a medallion of the lamented youth, from a design by Mr. Flaxman. We quote the following lines on this subject with much pleasure :

‘ That youth of fairest promise, fair as May,
Pensively tender, and benignly gay,
On thy medallion still retains a form,
In health exulting, and with pleasure warm.
Teach thou my hand, with mutual love, to trace
His mind, as perfect as thy lines his face !
For Nature in that mind was pleas'd to pour
Of intellectual charms no trivial store ;
Fancy's high spirit, talent's feeling nerve,
With tender modesty, with mild reserve,
And those prime virtues of ingenuous youth,
Alert benevolence, and dauntless truth ;
Zeal, ever eager to make merit known,
And only tardy to announce its own ;
Silent ambition, but, though silent, quick,
Yet softly shaded with a veil as thick
As the dark glasses tinted to descry
The sun, so soften'd not to wound the eye ;
Temper by nature and by habit clear
From hasty choler, and from sullen fear,
Spleen and dejection could not touch the mind
That drew from solitude a joy refin'd,
To nurse inventive fire, in silence-caught,
And brood successful o'er sequester'd thought.’

The poetical part of this volume exhibits the merits and defects which were characteristic of Mr. Hayley's former writings. The sentiments are liberal, ardent, and manly, and the writer displays throughout an enthusiastic fondness for his subject: but the construction of the verse is often prosaic, and whole passages sometimes display the *Studium sine divite vena*. We observe, likewise, in many passages, an unnecessary and a too licentious use of personification; as in the following :

' When happy Genius, by a daring flight,
Has seem'd to perch on proud Perfection's height,
Afraid on disproportion'd wings to rise,
Aw'd and abash'd, weak Emulation dies.'

And in these lines ;

' To call Invention from her coy recess,
And bid just Form the young idea dress.'

The notes, which, according to this author's custom, compose a large share of the volume, are learned, elegant, and amusing. Mr. Hayley has introduced into them several poetical translations from the *Anthologia*, in which he has been more just to the sense, than happy in preserving the manner of his originals. It is, indeed, chiefly in the structure of his verse that we can find reason for blaming this pleasing poet. Though the mechanical part of versification is an inferior object compared with the general one and colouring of the work, it cannot be neglected with impunity ; and modern readers, accustomed to the strength and correctness of Pope, will not admit a line to be poetical merely because it happens to consist precisely of ten syllables. It is with unwillingness that we advert to deficiencies of this nature, which have too often interrupted our pleasure in the writings of the present author ; and which perhaps have arisen, in some degree, from the wrong choice of a model, since Mr. Hayley seems more inclined to imitate Johnson than Pope.

We extract, as a specimen of Mr. H.'s illustrations of his text, the note on a part of the III^d epistle, relative to the famous Praxiteles :

' Praxiteles, who is mentioned by Pliny as flourishing with his brother artist Euphranor, in the 104th Olympiad, arose to the highest distinction for the impassioned delicacy of his works, both in brass and marble, but particularly in marble. The rank he held in the public esteem is evident from the petty anecdote recorded in Phædrus, that those who had delicate pieces of sculpture to sell, enhanced the price of them by erasing the name of Myron, and inserting that of Praxiteles in its place. Pliny, who has enumerated many productions of Praxiteles, celebrates his Cnidian Venus as the most perfect image of beauty that sculpture ever produced ; and relates some amusing incidents in proof of its perfection, particularly an offer made to the inhabitants of Gnidos, by the king Nicomedes, who was desirous of purchasing this admired statue on the liberal terms of paying the heavy public debt of their island. They chose rather to struggle with any difficulties than to relinquish a work of art with which Praxiteles had ennobled their country. The statue was stationed in a small open temple, that the form of the goddess might be visible in every direction ; and it was esteemed admirable in every point of view. Universal admiration gave birth
to

to several Greek epigrams on this exquisite statue. I have selected the two following from the Anthologia :

‘ ANTHIATPOY ’

ως αγαλμα Αφροδιτης της εν Κυπρω.

Τις λιθοι εψυχωσι ; τις η χαν Κυπριου σπειδη ;
 Ημερω εν πτερε της παση μεγαλωτο ;
 Πραξιτελης χειρω οδι πεν πυνος · η ταχ’ Ολυμπος
 Χερσιν, Παφιος εις Κνιδον ερχομεντος.’

‘ Grotii Versio.

- ‘ Quis lapidi spirare dedit ? Quis Cyprida vidit
 In torris ? Quantum marmor amoris habet !
 Praxitelis manus est ! Venere, ut puto, regia cœli
 Jam caret, ad Gnidos venit ut ipsa Venus.’
 ‘ Who gave the stone a soul ? Say, who has seen
 And of this marble made Affection’s queen ?
 Praxitëles ! thy work makes Heaven appear
 Now desolate, and Venus only here.’

‘ ΔΟΥΚΙΑΝΟΥ

εις το αυτο.

Σοι μορφης ανεθηκε της περικαλλης αγαλμα,
 Κυπρι, της μορφης φερτερον ειδει εχον.

‘ Grotii Versio.

- ‘ Alma Venus, tibi sacro tuam sub imagine formam ;
 Pulchrius hac potuit nil tibi, diva, dari.’
 ‘ Venus ! to thee I rais’d thy form divine,
 Convinc’d no offering can thy form outshine.’

‘ The glory that Praxiteles acquired from the excellence of his Venus was increased by the felicity with which he executed more than one statue of Cupid. The orations of Cicero against Verres have given celebrity to the marble Cupid, which the orator represents as a rival to one still more famous, by the same artist, that formed the pride and the wealth of the Thespians—a statue spared by Mummius, when he plundered the cities of Greece. The rapacious Verres had robbed an ingenious and friendly Sicilian of a similar exquisite and invaluable work of art, which Cicero describes as the production of Praxiteles. It is remarkable that the Roman orator speaks with singular modesty, on this occasion, of his own knowledge as a connoisseur : “ Marmoreum Praxitelis, (nimirum didici etiam, dum in istum inquiero, artificum nomina.”) The rapacity of the infamous governor had indeed amassed such a collection of sculpture, that an examination of his plunder was almost sufficient to form a Roman connoisseur. The curious reader may find this collection agreeably illustrated in a Dissertation by the Abbé Fraguier, inserted in the Memoirs of the French Academy, and intitled “ The Gallery of Verres.”

‘ The happiest of Cicero’s repartees alluded to a statue of this collection, a very valuable sphinx of bronze, which formed a part of

the powerful extortioner's Sicilian plunder: Verres had bestowed it, as a retaining fee, on his advocate, the celebrated orator Hortensius, who had a strong passion for works of art. In the course of the pleadings, Hortensius happened to say to his antagonist, "I do not understand these riddles!"—"But you ought," replied Cicero; "for you have the sphinx at home*."

To return to the Cupid of Praxiteles.—The sculptor Falconet has censured his countryman, M. de Jaucourt, for inserting in the French Encyclopedia an anecdote relating to this celebrated statue, told on the authority of the President de Thou. The story says that the Marchioness of Mantua possessed, in the year 1573, the Cupid of Praxiteles, and the sleeping Cupid of Michael Angelo; and that de Thou, with other guests of the Marchioness, were charmed with the work of the modern artist, till they compared it with a superior work of antiquity that seemed to annihilate its merit. The story is certainly improbable in many points of view; and Falconet exults in producing what he considers as a proof that the fact was impossible: I mean, the testimony of Pausanias, declaring that the famous Cupid of Praxiteles, a statue of marble, and the idol of the Thespians, perished (after a variety of adventures) in a fire at Rome. The evidence of Pausanias sufficiently proves, indeed, the fate of the Thespian statue, but it does not amount to a proof that it was impossible for the Marchioness of Mantua to possess a Cupid executed by Praxiteles; because we have already seen that there existed two marble Cupids of acknowledged beauty; by this illustrious sculptor; and among the statues described by Callistratus, two Cupids, by the same artist, in bronze, are celebrated as works of exquisite perfection. On one of these, perhaps, the following epigram was written; though Junius imagined that it was composed on the Thespian Cupid, and that the poet has taken the liberty to turn the marble into brass:

ἸΟΥΛΙΑΝΟΥ, ἀπὸ ὑπαρχῶν Αἰγυπτίῳ,
εἰς τὸν Πραξιτέλῃς Ἔρωτα.

Κλῖνας αὐχέτα γυμρὸν ὕφ' ἡμετέροισι πιδίλοις
Χερσὶ μὲ ληϊδαίῃς ἐπλάσῃ Πραξιτέλῃς.
Αὐτὸν γὰρ τὸν Ἔρωτα τὸν ἐνδοξὸν κευθόμενον μὲν
Καλλωπίας, Φρυγὴ δὲ κε γέρας Φιλίης.
Ἡ δὲ μὲν αὖτις Ἐρωτὶ προσπαγαλὴ καὶ γὰρ ἔρωτας
Δωρὸν Ἐρωτὶ φέρειν αὐτὸν Ἐρωτα δέμας.

* Grotii Versio.

* Praxiteles famulante manu me fecit Amorem,
Sub pedibus pressus colla superba meis;

* Both Pliny and Quintilian have recorded this bon mot. The latter cites it as a model of oratorical urbanity: "Ex historia etiam ducere urbanitatem, eruditum; ut Cicero fecit, cum ei testem in judicio Verris roganti dixisset Hortensius: 'Non intelligo hæc ænigmata.' 'Atqui debes, inquit, cum sphingem domi habeas.' Acceperat autem ille a Verre sphingem æream magnæ pecuniæ."—QUINTIL. lib. vi. c. 3."

Fecit

Fecit' ut, in venis quem sensit, aheneus essem,
 Ut Phrynæ donum me daret ipse suæ :
 Illa datum tibi rursus, Amor, sacravit Amori,
 Namque dari dignum munus amantis Amor.'

* Julian, the Ægyptian Prefect, on the Cupid of Praxiteles.

' Praxiteles, proud slave of my command,
 Thus form'd my statue with his fetter'd hand.
 Me, couch'd within him, he in bronze portray'd
 For Phryne, who with love the gift repaid.
 She made her captive mine. To hearts that burn,
 Love is for Love the only just return.'

Having discharged our duty to the public, by delivering an unreserved opinion respecting the poem before us, we must conclude with one additional remark, which justice also demands of us; that, in our apprehension, no person will rise from the perusal of this essay, without feeling much respect for the knowledge and talents of the author: *Virum bonum facile dixeris, magnum libenter.*

ART. II. *The History of Scotland*, from the Union of the Crowns on the Accession of James VI. to the Throne of England, to the Union of the Kingdoms in the Reign of Queen Anne. By Malcolm Laing, Esq. With two Dissertations, historical and critical, on the Gowrie Conspiracy, and on the supposed Authenticity of Ossian's Poems. 2 Vols. 8vo. pp. about 520 in each Vol. 12s. Boards. Cadell jun. and Davies. 1800.

IN the year 1759, Dr. Robertson presented to the world his *History of Scotland**; which comprehended the reign of Queen Mary and that of King James VI. till his accession to the Crown of England, together with a Review of Scottish History previously to that busy and important period. The great and original merit of this work, which has deservedly placed its author in the first rank of historians, satisfactorily accounts for and completely justifies the success which it has experienced. The transactions of the period which it embraced were entertaining and momentous: they produced two parties who were actuated against each other by the strongest political hatred; and these parties gave rise to writers who defended their respective sentiments and conduct with such energy, that truth could scarcely be attained from their jarring accounts.—Party animosity continued with equal if not increased violence, during the succeeding reigns of the first and second Charles and the second James; and an impartial history of that time has not hitherto appeared: though the prejudices, which then raged

* See M. Rev. vol. xx. p. 163.

with uncontrollable violence, may now be supposed to have subsided, and to have yielded to different and later partialities.

The author of the volumes now before us observes, in his preface, that

‘The domestic transactions of Scotland, from the Accession to the Union, have hitherto remained concealed in manuscripts, or buried in the obscure volumes of ecclesiastical disputation. The most prominent events alone are occasionally recorded in English historians; but the causes, consequences, and the whole train of subordinate incidents, are imperfectly known. It becomes not me to determine, hardly indeed to conjecture, how far, or whether I have succeeded in my design, to give a just and impartial continuation of the History of Scotland down to the period when its History expires.

‘During the whole of the civil wars, it is impossible to separate the history of the two kingdoms. Without departing therefore from my professed design, I have entered largely into the relative affairs of England, and omitted no opportunity to illustrate, concisely, the most disputed passages concerning the origin and continuance of the civil wars, the character and motives of Charles I. and the cause of his death. It is here, where the judgment is pre-occupied with some historical theory or political system, that I anticipate the principal objections to my work; but if I deviate from our recent historians, I approach the nearer to those original authorities which I have been the more careful to quote, and which they who dispute my conclusions are requested to consult.’

The detail of these domestic transactions is particularly interesting; and we find in these volumes a narrative of events, both civil and ecclesiastical, which fully accounts for the hostility which the family of Stuart experienced in the northern part of the island. Instead of being surprized that the Scottish nation threw off all allegiance to the sovereigns of that race, their cruelty, perfidy, and general misconduct were such, that we rather wonder at the patience, long suffering, and forbearance exhibited by that injured people.

The materials, which have been chiefly consulted by Mr. Laing in the course of the present work, are pointed out by him in the following passage of his preface:

‘The manuscript materials employed in this history are chiefly derived from the library of the Faculty of Advocates at Edinburgh, to which I enjoy a professional access. Calderwood’s MS. cited wherever the printed abstract is defective, Matthew Crawford’s, and some other manuscript histories, were procured from the records of the church of Scotland. The records of the justiciary court, and of the privy council, have been frequently examined; but I am indebted for many valuable materials, to the private repositories of gentlemen, whose friendship I am proud to acknowledge. Mr. Erskine

Erskine of Mar communicated to me the correspondence of his ancestors, the earl of Mar and his brother lord Grange, without solicitation and without reserve. Through the friendship of Mr. Clerk of Eldon, whose Naval Tactics have contributed to our naval victories, I obtained full access to the historical writings of his father Sir John Clerk of Pennyquick, a commissioner at the Union; and from the honourable Mr. Maule I procured the transcripts of Fountainhall's Memoirs, and of other MSS. preserved by his ancestor, Mr. Henry Maule.

Instead of extracting from these materials a collection of original papers, in which it would be difficult to separate historical facts from the fanaticism of the age, I have subjoined such Notes and Illustrations as were necessary to explain at length, and to confirm the most doubtful, or disputed passages in each volume. On two occasions only I have departed from this plan. The forgery detected in Logan of Restalrig's supposed letters, might appear to discredit the whole Gowrie Conspiracy, which belongs to the preceding period of history; but I have annexed, without scruple, to the first volume, an Historical Dissertation for which I am indebted to the friendship of Mr. Pinkerton, who, in my apprehension, has placed that obscure transaction in its genuine light. The other instance, in which I have deserted my accustomed mode of illustration, is the Dissertation annexed to the second volume, on the supposed Authenticity of Ossian's Poems. The prevailing belief of their authenticity, at home and abroad, will render it the less surprising, that in a question concerning our literature and early history, I was desirous to vindicate to my countrymen that incredulity which I have freely and repeatedly expressed. As a short note was found insufficient, I have entered, as concisely as possible, into a copious detection of those spurious poems, by some supposed to reflect the greatest honour, by others the greatest disgrace, on that part of the nation which claims and attests the imposture as its own.²

To the character of James I. Mr. Laing does not appear to be partial; and he attributes his peaceful and undisturbed possession of the Crown of England to the absence of every competitor, by whom his title could be contested, or the affections of the nation pre-occupied or divided.—The account of this Monarch's unsuccessful attempt to effectuate an union, and an ecclesiastical conformity between the two nations, is interesting. James was hostile both to the *form* and to the *spirit* of presbyterian discipline, because he regarded them as obnoxious to that unlimited monarchy which he wished to establish.—As the consequences of the introduction of episcopal government were so memorable in the succeeding reigns, and were ultimately so disastrous to the family of the Stuarts, Mr. Laing has thought it expedient to give a retrospective view of presbytery, and of the changes which were attempted in the Scottish church. From this part of the work, and indeed from all

all other parts in which ecclesiastical concerns are discussed, we have derived considerable information.

That our readers may be made acquainted with the state of Scotland at this period, we extract the following account:

James, established now on the throne of Britain, had attained to the summit of his fortune and ambition; and, by a singular felicity, he whose birth was disastrous to his parents, whose infant reign was calamitous to his subjects, and his person the alternate prize of contending factions, had arrived, without the aid of distinguished merit, and almost without an effort, to the undisturbed possession of three kingdoms. Whatever he had meditated for the improvement, or concerted for the better regulation of his paternal dominions, remained now to be executed; and certainly the situation of Scotland afforded ample scope for the exercise of his political wisdom. The country, agitated during his minority with civil dissensions, and often ravaged by internal war, remained on the return of tranquillity, exhausted and debilitated; without industry, and destitute of resources to prosecute schemes of remote aggrandizement. Its trade was limited to a few towns, and consisted of wool, hides, and the more precarious produce of its mines and fishings, exported in small barks of little value, and exchanged for whatever articles of utility or luxury were requisite to supply its domestic consumption. Wherever the rude products constitute the staple commodities of a country, large or important manufactures are not to be expected: those of Scotland were confined to a few of the coarsest nature, without which the poorest nations are unable to subsist. The state of agriculture was languid and stationary, obstructed; even in the southern provinces, by the oppressions of the landlord, the dependence of the farmer, and their mutual poverty; but in the northern counties, the peasant extracted a scanty pittance from a soil exhausted by constant tillage. The nobility disdained, or obeyed with reluctance the decisions of justice. They continued to prosecute their deadly feuds; to abet the most desperate crimes of their retainers; and, under their numerous hereditary jurisdictions, to extend their oppressions, their power, and dependents beyond the circle of their respective vassals. Their feuds were inveterate; and their revenge was frequently dishonest and insidious. The sanguinary troubles of a female reign, and a long minority, had perverted or extinguished their sense of morals, and discovered, during a religious age, that no religion can compensate the absence or the relaxations of justice.

A distracted country, whose poverty presented no adequate reward nor an occupation for industry, had already been deserted by many of the natives, who, penetrating into the remotest regions, acquired, or perhaps revived among foreigners, the national appellation of a vagrant race. Their numbers multiplied rapidly in Poland, whose plains they traversed in large caravans; whose internal trade they divided with the Jews; and, during the last century, a constant influx of fresh adventurers returned enriched by the luxury of the Polish

Polish nobles *. But a large portion of Scotland retained the primitive ferocity of its savage state. The Isles are represented as utterly barbarous; the Highlands as barbarous, yet not unsusceptible of a slight civilization. The former, an occasional asylum for pirates, scarcely acknowledged a nominal subjection to the Scottish crown; the clans of the latter exhausted their rude valour in mutual slaughter, or infested the adjacent Lowlands with slight depredations. From a constant warfare, the inhabitants of the Borders were equally barbarous, and from their vicinity, far more formidable to government. James, from their strength and turbulence, had early presaged that unless possessed of the whole of Britain, his successor would be soon bereft of its northern extremity, and of his anointed head; a prediction destined to be strangely verified, by the acquisition of that kingdom for which he was solicitous.

The author gives no credit to the examination and confessions of Sprott, the Notary, with regard to the share taken by Logan of Restalrig in the Gowrie conspiracy. The attainder of Logan after his death,—an odious and illegal measure,—is without scruple imputed by Mr. Laing to the avarice of the two ministers, Balmerino and Dunbar; who were desirous of obtaining Logan's estates; and who are here represented as involved in the complicated guilt of forgery, false accusation, and judicial murder, in order to attain their unjustifiable purpose.

On the subject of this very mysterious transaction, to which we alluded in a former Review, in our account of Mr. Heron's History †, we are now presented at the end of vol. i. with an historical Dissertation from the pen of Mr. Pinkerton. In discussing this conspiracy, Mr. P. endeavours to support the following theory; that Alexander Ruthven, the Earl of Gowrie's brother, a favourite of the Queen, Anne of Denmark, was the sole author of this attempt; a plot in itself foolish and weakly conducted, but designed to accomplish some object which both had in view: most probably an abdication of the government by James, in favour of Prince Henry, and the Queen's appointment to the Regency.—The conjecture is probable, and is supported by arguments that are plausible; which, at this distance of time, is all that can reasonably be expected concerning so dark a transaction. The manner, however, in which this

* * Bacon, vol. ii. p. 175, from which it appears that they were numerous in Poland before the accession. Carte, Hist. vol. iii. p. 770. asserts, that from the accession till the death of Charles I. 200,000 families had emigrated to Livonia! as if the population of the country could have supplied an annual emigration of 4000 families, or 20,000 persons.

† See our last volume, p. 276.

distertation is written, is objectionable, as exhibiting a mixture of vivacity approaching to flippancy, and of confidence bordering on conceit.

We shall conclude our view of this reign with the dispassionate character of James I. as drawn by Mr. Laing; which it is amusing and not uninstrusive to compare with the studied and delusive panegyric of Hume:

'In the preceding narrative, I have endeavoured to comprise a series of ecclesiastical transactions, diffused through the last years of the reign of James. His death was occasioned by a tertian ague: but in a credulous age, and among a discontented people, the application of some empyrical remedies excited vague and unfounded suspicions of poison. He expired at the age of sixty-nine, in the fifty-seventh year of his reign in Scotland, and the twenty-second after his accession to the throne of England. His fortune was superior to that of his progenitors, and his felicity greater than that of his descendants. His person inherited no share of the beauty of his parents, nor his mind a portion of the exalted spirit which distinguished his ancestors. He was permanent in his friendship, but capriciously attracted by address or elegance to the most worthless objects; naturally lenient, yet vindictive, intolerant, and, from an extreme facility, betrayed by his minions into a frequent compliance with their most criminal pursuits; unreserved and familiar, yet capable of profound dissimulation and cunning; from a predominant vanity, accessible and prone to the grossest adulation; pedantic without the merit of useful literature; prodigal without the praise of true generosity. His reign was beneficial to England because it was tranquil; but unprofitable to Scotland, as it was spent in a contemptible struggle with the clergy, and in a vain attempt to surmount the religious persuasions of his subjects. Historians partial to his family, have sought a vindication of his misconduct in the dangerous independence of a sullen enthusiasm, that required an intermixture of more refined superstition; and an apology for his miscarriage, in the uncertain operations of the religious spirit, when infused into faction, susceptible of no calculation or control. That the ecclesiastical should be subordinate to the civil establishment is essential to the preservation of every social institution; and had his views extended only to the reduction of that dangerous independence which the church had assumed, the vindication would be just. But in every innovation it should at least be considered, that there is danger in counteracting the tide of popular opinion; and the monarch who aspires to regulate the national faith, forgets on what slight foundation his authority depends.'

In the narrative of the busy and distressing scenes which occupied the latter years of the reign of the unfortunate and ill-advised Charles, whose natural abilities were considerable, but whose integrity was more than questionable, we observe the same impartiality and clearness which we have admired in

other parts of these volumes. Truth appears to be the author's sole object; and in the pursuit of it he is neither biassed by improper prejudices, nor checked by any fear that the result of his investigations may be unfavorable to this or that hypothesis.—As these events, however, have been so frequently detailed, and have lately in more than one instance come under our examination, we shall detain our readers only with Mr. Laing's account of the negotiations between the English and the Scots, with respect to the surrender of this monarch's person, by the latter, to his most inveterate enemies :

‘ On this subject (observes the author) I am sensible, that there is equal danger of incurring, on the one hand, the imputation of national partiality and prejudice, or of acquiescing on the other, without due examination, too precipitately in the received opinion; but the fidelity of the historian will be absolved by an accurate explanation of each transaction in the order of time, the best criterion, perhaps, of historical truth.

‘ The retreat then of the Scots, and the discharge of their arrears, were proposed in August, to prevent an immediate declaration of the commons against the king. Their demands exceeded a million, after the deduction of free quarters, contributions, and occasional pay, which were estimated by themselves at seven, and by the English at fourteen hundred thousand pounds. Their demands were exorbitant; but the deductions claimed by the English were not less unreasonable. A gross sum was proposed, and on the first of September the amount of arrears was fixed at four hundred thousand pounds; a moiety of which was to be advanced, before the departure of their army.

‘ On the eighteenth of September, the commons resolved, that the disposal of the king's person belonged exclusively to the two houses, but that no consultation nor dispute on the subject should obstruct the performance of treaties, or the return of the Scots. The resolution was communicated to the Scottish commissioners, and represented in a manner sufficient to demonstrate, that it had not entered into consideration in the settlement of arrears. At a solemn conference, Loudon, Lauderdale, and Wariston asserted their national right to an equal and joint share in the disposal of the king; maintained that their interest in his person was not determined by his residence in England, especially as they were parties, not auxiliaries, in the war; disclaimed the intention of conducting him to Scotland, as a measure obviously replete with danger; and proposed as a safer alternative, that he should be permitted either to return to parliament, or to reside with honour and safety at one of his own houses near the capital. Their speeches and remonstrances were surreptitiously published; but the printer was arrested, and the impression seized and suppressed. When republished afterwards by their connivance in Scotland, their arguments extorted a long vindication in return from the commons, who insisted that the king's person was included, while in England, within the jurisdiction, and subject to the disposal of the parliament alone. The question

question was certainly without a precedent, but the answer of a single branch of the legislature was rejected punctiliously by the Scottish commissioners, whose conduct, in a dispute irreconcilable with the supposition of a tacit connivance, exculpates them from any previous compromise for the delivery of the king.

The amount of arrears was adjusted in August, but when the Scottish parliament met in November, the disposal of his person remained undetermined. The duke of Hamilton, who had obtained his release on the surrender of Mount St. Michael, was received into favour, and employed to conciliate the estates to his interest; and it was still the unanimous opinion of his friends, as well as of the presbyterians, that he should accept the propositions, or afford full satisfaction, at least, in religion. Addresses had been presented from every quarter; the Scottish army, the commission of the church, and the committee of estates had petitioned Charles to establish religion according to the covenant; and Hamilton earnestly concurred in their representations, that the covenant alone would suffice for his preservation. Such was the estimation in which it was still held, that without violating his conscience by receiving it himself, if he had assented merely to an act for its confirmation, in each kingdom, all Scotland would have declared in his favour, and, in the opinion of the presbyterians, few in England would have ventured to oppose the restitution of a limited power. But his obstinate and inflexible refusal of every proposition increased their mistrust, that he continued secretly devoted to the religious and political maxims of Laud, and desired admittance into Scotland with design to renew, and by the violation of their covenant, to involve the nation in a dangerous war. The intrigues of Hamilton were, therefore, unsuccessful. A vote was obtained by surprise, in a committee of the whole estates, to maintain the personal freedom, and hereditary right of their king to the English throne; but it appears that this untimely excess of zeal, from the alarm which it excited, was prejudicial to his cause. The minds of men were variously agitated by the most opposite sentiments. It was represented by Hamilton as repugnant to the covenant to abandon their sovereign, and dishonourable to the nation to resign their interest in an ancient, and long established succession of kings. Was this a grateful return for his unlimited concessions before the war, or for the confidence reposed in their generosity, when he entrusted his person unconditionally to their protection? Were they prepared for the censures of the world, or aware of the danger to be apprehended from the party predominant in England, if his person were surrendered to his inveterate foes? But the resolution was no sooner adopted by the committee, than other sentiments began to prevail. That devoted and mixed attachment to the family and person of the monarch, which constitutes loyalty, and was never firmly established in Scotland, had been lost in a succession of civil wars. It was still remembered, that the two first had been wantonly undertaken to deprive them of their civil and religious rights. If these were afterwards confirmed by Charles, what thanks were due for concessions which were meant as bribes, to lull them into an insecure neutrality, till the English parliament were suppressed by his arms;

arms; and which must have been revoked on its subjection, unless they had timely interposed in the war? What gratitude belonged to the unconditional refuge which he sought in their camp, when no choice remained but to surrender at discretion, and his only motive was to prolong the war by their resources and arms? The reception which he demanded in Scotland, on the return of their army, was dictated by the same design to involve the nation in a new war for his support. Whatever the event of such war might prove, their ruin was inevitable, whether the malignants, as the royalists were still denominated, should regain an ascendant, or the English succeed in chastising their perfidious dereliction of the covenant.

These considerations were enforced by a solemn warning from the commission of the church, that their assistance to restore the king was unlawful, unless the covenant and league with England should receive his cordial assent, and his subjects full satisfaction in their just desires. The parliament hastened to retract the vote of the preceding day. As a last unavailing effort, commissioners were appointed from each estate, to intimate to the king, that unless the propositions were accepted, he had no reception nor assistance to expect in Scotland. Instead of returning a definitive answer, Charles, on the first notice of this resolution, renewed his application for a personal conference with the English parliament. He desired permission to proceed to London, or to reside with freedom at one of his own palaces in the neighbourhood; and the lords resolved, that he might come to Newmarket on the departure of the Scots, but the commons determined that Holdenby-house in Northumberland was fitter for his reception.

At this period we are informed by Whitlock, that a mutual understanding first began for the delivery of the king. The disposal of his person was every way difficult; his removal to Scotland was an event which the independents expected, and the presbyterians justly deprecated as the signal of a national war. It was dangerous to leave him exposed to the English army; and the wisest measure undoubtedly was to provide at once for his reception in London. Whether his return to the capital was opposed by the presbyterians, who were apprehensive of his intrigues, or by the independents, jealous of the possession of his person, must remain uncertain. But we are assured by one who was privy to the whole transaction, that Stapleton, Hollis, and the leading presbyterians, were the chief instruments to persuade the Scots to surrender the king into their hands and withdraw from England, as the only means by which the independent army, which had been kept on foot in opposition to theirs, could be securely disbanded, and peace re-established according to their desires. Their army prepared accordingly to evacuate England, when a sum was provided for the discharge of half their arrears. Their parliament concurred in the removal of Charles to Holdenby-house, till a more satisfactory answer were obtained to the propositions for peace. Their arrears were undoubtedly due: the amount was ascertained before the dispute concerning the disposal, and the payment was undertaken by the English parliament, five months previous to the delivery of the king. But the coincidence,

however unavoidable, between that event and the actual discharge and departure of their army, still affords a presumptive proof of the national imputation of having sold their king; "as the English, unless previously assured of receiving his person, would never have relinquished a sum so considerable as to weaken themselves, while it strengthened a people with whom such a material question remained to be discussed."

"The necessities of their situation, or the danger of conducting him to Scotland, are no answer to this forcible objection. A better vindication is contained in the uniform tenor of their political conduct, and in the unvaried object of their most secret intrigues. They had received the king, with no view certainly to renew the war, but in the expectation, and on the assurance of full satisfaction to the two kingdoms; and without a perfidious violation of their engagement with the English parliament, they could neither conclude a separate peace, nor embark in his defence, unless their joint demands were obtained. But they engaged to support and reinstate him on the throne, if their original demands were granted respecting the covenant and the presbyterian church, together with some satisfactory answer to the other propositions; and on this subject the importunities of their commissioners never ceased. The addresses of their parliament were reiterated during the months of November, December, and January, while the disposal of his person remained in agitation. On the very eve of their departure, before the delivery of his person, their commissioners renewed the most earnest offers to conduct him to Berwick, and to procure more equitable terms from the English parliament, on his assent to the covenant, and the presbyterian government; and an immense bribe was proposed to Montreville, to obtain even a bare promise of his compliance with their religious demands. The fact is, their situation was so peculiar, that they could neither retain nor relinquish the possession of his person, without incurring the imputation of treachery to the parliament, or of disloyalty to the king. To the parliament, at least, they were stedfast in their engagements; and their repeated offers, renewed at the period of their departure, to undertake his defence on the only terms consistent with their original engagements, their religious principles, or their political interests, should absolve them from the imputation of having sold their king, or retained his person as a pledge to extort their arrears."

Our extracts from this valuable work must now approach their termination; and we shall conclude them with the character of this ill-starred sovereign, and the summary account of the misfortunes of his house:

"His character is more difficult to estimate, as it has been loaded with unmerited crimes by his enemies, and overcharged with virtues by the partiality of his friends. Temperate, chaste, and exemplary in his conduct, grave and dignified in his deportment, in his conversation strictly observant of decorum, he was diligent in the performance of every act of devotion, exact in the discharge of every moral duty incumbent on a father, a husband, or a friend. If insensible to the

the feelings of refined humanity, his heart was not insusceptible of a tender affection and permanent friendship. His mind was naturally acute and solid; cool and intrepid in danger, on great occasions magnanimous and equal; endued with a cultivated and magnificent taste, nor defective in those meaner, ornamental qualities which adorn a throne. The virtues of private life were undoubtedly his; but when we reverse the portrait, such were the opposite imperfections of his character, that those virtues were unprofitable to the public, and not unfrequently pernicious to himself. His religion was superstitious, intolerant, and replete with bigotry: his dignity, supercilious and seldom affable, betrayed an harsh and repulsive pride. His ear was open to suspicion, nor inaccessible to flattery: his conjugal affection was uxorious in the extreme: his manners, although he was seldom generous, were equally ungracious, whether he granted or refused a request. Tenacious of his purpose, inflexible and obstinate in the prosecution of his objects, but inconsiderate, rash, and easily persuaded to the choice, or alteration of the means, his mind was unduly elevated by prosperity, though never equally overwhelmed by adverse fortune. His humanity is impeached by those barbarous punishments inflicted by the Star-chamber, for the monarch who tolerates the cruelties of his judges, which are never inflicted unless when acceptable, becomes responsible for their crimes. But the ruling passion, or rather the uniform principle of his whole life, was the desire of an inordinate power, which he refused to share unless with the prelates, and which he could neither enjoy with moderation nor consent to resign.

Sincerity was certainly no part of his character; but his insincerity was rather that of a priest who provides some previous reservation to evade, than of a prince who perfidiously violates, the obligation which he contemns. A subtle and professed casuist*, he was enabled to reconcile the most disingenuous protestations to his own conscience, and without an absolute breach of veracity, studied by verbal evasions to deceive his enemies, and by mental equivocation to deceive himself. It is not sufficient to affirm, that the difficulties of his situation, his own imprudence, or even the utmost malignity of fortune, occasioned the great and almost unexampled calamities of his reign. We must add that the early and repeated instances of his insincerity, which we have occasionally described, had created such a firm belief of his dissimulation, that the popular leaders, from a well-founded distrust of his ambiguous declarations, were ever afraid to treat, unless on their own terms, to which he was unwilling, or unable to accede. The evidence resulting from his confidential letters, where the proofs of a disingenuous mind can alone be found, is industriously suppressed by those partial historians, who asserting the unblemished integrity of his character, take no note of the principal

* He translated Sanderson *De Juramenti Promissorii Obligatione*, while in the Isle of Wight. It is justly observed by Walpole, that casuistry is not necessary, for the observance, but for the breach of an oath; that an honest man who studies cases of conscience, expects to find that he need not be quite so honest as he thought.

cause of his misfortunes and death. That his condemnation was unjust, that he suffered from a violent and usurped authority, has never been disputed, unless by zealots, but when examined in a moral or political view, his conduct is not susceptible of an easy vindication. Whether his exalted ideas of the prerogative in England, were derived from established, or irregular precedents of an unsettled constitution, is an inquiry foreign to the design of this history : but his religious innovations, the sole object of his reign in Scotland, were introduced by a conscious violation of the laws, and a direct invasion of the legislative power. The facility with which he commenced hostilities against his subjects, reduced the Scots to the necessity of self-defence, while the English were gradually familiarized and habituated to the ideas of resistance. His subsequent conduct contains an internal proof, that his concessions to the latter were meant to be resumed, and their parliament to be reduced by force of arms ; and from the same motive, every accommodation was declined or disappointed during the flattering prospect of a successful war. But the immediate cause of his destruction, and undoubtedly one of the most exceptionable parts of his conduct, was his engagement with the Scots for the renewal of the civil wars, during a treaty with parliament ; and when we consider how short is the distance between the prison and the grave of kings, that their enemies are ever prone to retaliate those severe conditions under which they fought themselves, it must appear far less surprising that he perished on a scaffold, than that he survived so long. The right of punishment seems to be implied in resistance, for it is difficult to conceive by what argument resistance can be justified, if it is forbidden to chastise, or prevent the resumption of an arbitrary power. But obedience to government is the general rule ; resistance is an exception which rarely occurs, and for what purpose inculcate the exception, to which mankind are sufficiently addicted, in preference to the rule on which our security depends ? To resist the encroachments, to correct the misconduct, to revoke the delegated powers of their magistrates, are doctrines not less dangerous perhaps for a government to tolerate, than for the people to forget. If never inculcated, the exception is soon forgotten, and society sinks at last into a state of tame servility from which there is no regeneration. The arbitrary reign of Charles would have been prolonged by his sons, and the two kingdoms, oppressed and converted by a popish successor, might have inquired at present, as a subject of curious, but silent speculation, what were the religion or liberties which their ancestors enjoyed.

But whatever were the faults or imperfections of Charles, his misfortunes were great and unparalleled till of late, except in the eventful destiny of the house of Stewart. Historians have truly observed, that of ten generations of kings, his father, and the first prince of his race, were the only two who escaped a violent or untimely death. Robert II. the first of the Stewarts, expired of old age ; Robert III. of a broken heart at the murder of one son, and the captivity of another. James I. returned from a long captivity, to perish in a few years by the hands of assassins. His son was killed at the siege of Roxburgh, his grandson by his rebellious subjects.

jects. James IV. expiated his father's death at the battle of Flodden, and James V. died of indignation and grief. The misfortunes or crimes of his daughter, the beautiful and accomplished Mary, have furnished almost every art with a theme of historical or romantic distress; and when she suffered on the scaffold, her vindictive rival suggested unconsciously, the fatal precedent for the trial of her grandson, and the execution of a king. James VI. experienced a natural death, but the calamities of the family seemed to be accumulated on Charles. His sister's children were expelled from their paternal dominions. His nephew, the elector palatine, subsisted on the bounty of parliament; and by a final reverse of fortune, his posterity, after a short restoration, has suffered a second exile; the last prince of his race has obtained a precarious retreat in the Romish church, while the descendants of his sister, by a female branch, have been raised to the secure possession of the throne from which his son was expelled.

Mr. Laing is satisfied that the *Icon Basilike* was a political forgery, proceeding from the pen of Dr. Gauden; and indeed this opinion is sufficiently verified by a letter, inserted in the Clarendon papers, addressed to the Chancellor by Gauden, in which he claims the merit and reward of this pious deception.

It is impossible to peruse the transactions of the two succeeding reigns, without feeling the strongest abhorrence of the characters by whom they were concerted, and of the motives in which they originated. The cruelties committed by James in Scotland, both in the life-time of his brother and after his death, are so numerous and disgusting, that we turn our eyes from the recital with insuperable aversion. That such enormities should be perpetrated by man against his fellow man is sufficiently deplorable: but that such outrages should be committed under the pretence of promoting a religion which teaches peace, good-will, and universal charity, would surpass the belief of any person who was unexperienced in the history of the world.—Mr. Laing is of opinion that the revolution was to England a glorious event, rather useful than absolutely necessary to restore tranquillity to Scotland, and to revive the confidence of the people in government; 'without which (says the author) the king degenerates into a tyrant, and his subjects vibrate alternately between rebels and slaves. So various and enormous, (continues Mr. L.) was the tyranny which I have attempted imperfectly to delineate, that the people never could have dismissed their suspicion and resentment, nor the government the terrors which it felt and sought to inspire; the uniform principle of despotism, for which we may truly affirm that there was no cure but the expulsion of the Stewarts.'

From what we have already said respecting the merits of this performance, and from our extensive extracts, the reader will

infer that our judgment of the work is highly favourable. We have seldom, indeed, perused an historical composition which appeared to us to be written so entirely in a spirit of impartiality; though it discusses the events of a period which still too frequently produces animosity and party-spirit. The reflections are candid, judicious, and moderate; the facts are well arranged, and stated with distinctness: but we think that, in his attempts at elegant composition, the author is too frequently betrayed into obscurity.

At the end of the second volume, we find a dissertation on *Ossian's Poems*; in which, without hesitation, Mr. L. attributes those productions to the pen of their supposed editor, Mr. Macpherson. This opinion is supported by some powerful arguments; among which must be reckoned a strong resemblance discoverable between the *Highlander*, a poem written by Macpherson, (not favourably received by the public,) and *Fingal*, with respect to both sentiment and expression. The resemblance to other authors, antient and modern, necessarily creates suspicion respecting the origin of these poems.

ART. III. *Travels in the French Republic*: containing a circumstantial View of the present State of Learning, the Arts, Manufactures, learned Societies, Manners, &c. in that Country. By Thomas Byggé, Professor of Mathematical Astronomy in the University of Copenhagen, and Member of several learned Societies and Academies of Sciences, &c. &c. Translated from the Danish by John Jones, LL. D. 12mo. pp. 430. 6s. Beards. R. Phillips. 1801.

IN consequence of the French Government having invited neutral and allied powers to send deputies to confer with certain members of the National Institute, on the means of establishing an invariable and uniform standard of weights and measures, M. Byggé was deputed for this purpose by the Court of Denmark; and the observations made during his residence in Paris, and in his journey thither, constitute the materials of the present work. Very little room is given to the description of places, the narration of events, or the delineation of manners: since, biassed by his own disposition and pursuits, the author has confined himself to the description of those matters in which he was chiefly interested. From this limitation of subject, therefore, the volume wants the diversity which many books of travels possess; yet it will not, on this account, be unacceptable to those readers who regard the depth of information rather than extent, and love precision more than variety. The necessity which the writers of travels seem to have imposed on themselves, of pronouncing on every object which

which is obtruded on their notice, and on every subject that is worthy of discussion, has been the fruitful source of false judgments and vague notions.

The first part of this volume contains little that requires our notice ; and we dismiss it with a solitary disapproving remark, on an opinion concerning the tides (p. 11.), which seems to be a very strange one as coming from a mathematician.

The author's route lay through Osnaburgh, Munster, Wesel, Brussels, Valenciennes, Bouchain, and Chantilly. Osnaburgh and Hanover, he remarks, in a space of 22 years have been little or scarcely at all improved : agriculture has made no advances ; and the roads are miserably bad. Here the traveller finds occasion for gratifying his national pride, by contrasting the state of these two places with the appearance of Denmark. At Wesel, contrary to his expectation, (founded on reports industriously propagated,) M. Byggé met with civility from the French officers.—The roads and cottages near Valenciennes are described as being in a deplorable state, in consequence of the ravages of war. In that part of the town which is next to the rampart, whole streets and lanes have been demolished : some buildings levelled with the ground, and others burnt : but the most distressful sight, which Valenciennes presents, is a swarm of importunate beggars, consisting of the youth of both sexes, who have been deprived of employment by the stoppage of the manufactures.—The destruction of the fine park and palace of Chantilly is well known :—but let us hasten the author to Paris, the most interesting scene.

M. Byggé gives a description of the Primary and Normal Schools. In the former, are taught reading, writing, arithmetic, &c. and properly, in the metropolis : but the Provincial Schools are conducted in a slovenly manner. The Normal Schools sprang up hastily from a decree of the Convention, in 1795 ; and, if we judge from the abilities of such men as La Grange, La Place, Berthollet, &c. they must have been ably superintended. They lasted only a year, and were superseded by the Central and Polytechnic Schools, and the Schools of Public Service. These are next described, with an account of what is taught in them, their professors, &c. ; and within this description is contained some notice of those men who have been long known and much celebrated in Europe, for their inventions and the depth of their researches. The following extract relates the examination of the pupils in the Polytechnic Schools :

‘ When the lectures are closed, which happened this year in Brumaire, there is an examination of all the pupils who have finished their course, and who would wish to enter into the schools destined for the accomplishment of candidates for the public service, in the

construction of roads and bridges, ship-building, &c. or of those who would wish to become masters in other useful arts. For the present examination, the Directory appointed Laplace and Bossut. The first examined the students in the analytic sciences, and the other in mechanics. Those who were to be examined were called up in order, and were obliged to demonstrate without book the proposed theorems, and to solve the problems on a black table; which was considered at once as a proof of talents and readiness. Laplace proposed questions in series, logarithms, and curve lines, in that part of algebra which is applicable to geometry and trigonometry, and in the differential and integral calculi. He proposed every question with much perspicuity and precision, and gently recalled the pupil to the right point, if he happened to wander from it.

Bossut, in another room, examined in mechanics, statics, hydrostatics, hydraulics, &c. I found most of the pupils' answer very well, and with great readiness, difficult problems of the higher mathematics. But it must not be expected, that amongst so many, some would not be found of moderate and some of indifferent talents. Deshautchamps, the director, told me, that Laplace, on the whole, was not well satisfied, and that some of the pupils were not entitled to that attestation, by which alone they could be admitted into the Schools for the Public Service. He lamented, and not without reason, that in those examinations, the young men were left without any occasional assistance to their memory or conception, especially when they found themselves bewildered in algebraic calculations. It is certain, that a wink would often set them right, provided they had understanding and knowledge enough to avail themselves of it, which in itself would be a proof that they had not mis-spent their time. I informed Deshautchamps, that with us public examinations were held in gunnery, navigation, land-surveying, &c.; that part of these examinations was by word of mouth, and part in writing; that all the abstruse theorems and problems were proposed in writing, to which the candidate was required to give written answers; and that this method allowed him time to reflect on the subject, to arrange it in his mind, and to revise and correct his piece as often as he pleased. Deshautchamps highly approved of this mode, and said he would spare no pains to have it introduced. These examinations were public, though I very seldom found that foreigners, and those who were not in some measure connected with the Polytechnic School, were present.

When the pupil has resided in the Polytechnic School a year or more, and has undergone an examination, he is admitted into the Schools of Public Service and Application; which are intended to teach the construction of roads and bridges, mineralogy, geography, ship-building, artillery, fortification, and nautical affairs.

The buildings appropriated to the Schools for the Construction of Roads and Bridges are said to be disposed and embellished with great taste and magnificence, and furnished with
exquisite

exquisite models, arranged in beautiful order. They also contain a mathematical library of 2500 volumes.

Under the description of the Central Museum for Arts, is given the long catalogue of capital pictures brought to Paris by the victories of the French Armies; and sorry are we to learn, by the following passage, that some of these exquisite performances have been injured by their journey *:

‘ The managers have had the candor to acknowledge, that some of those master-pieces of art are in such bad condition that they cannot be exhibited. This seems tantamount to a confession, that they have been much injured on the journey, if not totally abraded and destroyed. In particular, it is known, that an excellent portrait of Raphael, by Foligno; the Holy Virgin and some Saints, by Bellini; the repast at the house of Levi, by Paul Veronese; the Marriage of Cana, by the same master; St. Peter, the martyr, by Titian; and several of the statues brought from Italy, have suffered greatly from the length of the journey.’

M. Byggé describes several pictures executed by French artists: but apparently he is no connoisseur, and therefore little dependance is to be placed on his opinion of their merits. In his visit to the observatory, an interesting incident occurred:

‘ When I first visited the observatory, I found below, in a kind of roomy and well furnished cellar, a door open, and an old man sitting at a table. Supposing him to be the porter, I enquired for Mechain, Delambre, and Bouvard. He told me, that Mechain and Delambre were gone to Perpignan, in order to measure a base line for determining a degree of the meridian. The supposed porter had papers before him, containing geometrical figures and algebraic calculations. I asked him, if he amused himself with geometry and algebra? “ Yes, in part,” replied the venerable man, “ but chiefly with astronomy. I was formerly astronomer of the observatory, but am now, as you see, thrust down into this cellar.” “ Your name?” “ *Jeaurat*.” “ And I am Byggé, from Copenhagen, who highly esteem you, and am well acquainted with your former labours.” It gave me great pleasure to become acquainted with this worthy man, who calculated the *Connaissance des Temps* from 1776 to 1787. Jeaurat, who is the oldest of all the present astronomers of the Parisian Observatory, established and put in order a similar erection at the military school, and is the author of thirty essays in the *Memoirs of the Academy*. It happened to him, as to many more, during the revolution, to be supplanted by younger rivals of superior interest, though not always better qualified. This astronomer, in his seventy-second year, has nothing to live upon but the salary of the youngest member of the National Institute, which is 1,200 francs, two small apartments on the ground floor, and a little garden. I requested him to have the goodness to shew me the observatory; but he declined it, and deprived me of an opportunity of thanking him. I was then obliged to

* See also our Review for August last, p. 402.

enquire who superintended the observatory in the absence of Mechain and Delambre? And was answered, Bouvard, adjunct astronomer, who lives in a small separate building belonging to the observatory, and where Mechain formerly resided for twenty years. Bouvard again unluckily was not at home, and I was obliged to content myself with the *Citoyen Portier*, a follower of St. Crispin, who, for the last eighteen months, had made shoes, waited at the observatory, and shewed it to strangers, and I had great reason to be satisfied with his service.

The Revolution has not poured its evils solely on the partisans of royalty and the priesthood; by its overwhelming torrent, many inoffensive men, lovers of peace and cultivators of science, have been deprived of subsistence:—of which another instance is here related:

‘The Cassini, whom I have so often mentioned, began, in 1784, to improve the observatory, to procure new and superior instruments, and to conduct the observations on a better and more accurate plan. He published yearly, from 1785 till 1791, a number or volume of his astronomical observations, on the fixed stars, sun, moon, and planets, calculated and compared with the best astronomical tables, in order to ascertain and correct the errors of those tables. He sent those numbers annually to other astronomers, and he had the goodness not to forget me. He did every thing, in short, that could be reasonably expected from an able, industrious, and experienced astronomer.

‘In the midst of Cassini’s celebrated career, the revolution took place. Having been suspected by the terrorists, he was driven from the observatory, which he had so honourably conducted, and not only deprived of his office and income, but confined in prison above a year; and he has saved nothing but his life, and a small property, which he inherited from his ancestors, where this worthy man, with his numerous family, exists upon a scanty income. In the opinion of some people, the ambition, envy, and egotism of certain other astronomers, have greatly contributed to drive both Cassini and Jaurat from the observatory.

‘Among other contrivances, Cassini had a foundry built for casting the large astronomical instruments, which he intended to have had constructed for the observatory. This foundry, when France was filled with manufactories of salt-petre, powder, and fire-arms, was converted into a cannon foundry. As relics of that direful and alarming period, eight cannons, twelve pounders, still remain there. But the times are now so much changed for the better, that the votaries of the beautiful and pacific Urania have now nothing to fear from these dispensers of the thunder of Mars; especially as they are not charged, or so much as furnished with touch-holes.’

Of the National Institute, and its members, some account is here given; and the author observes that, when the high talents and inventive powers of the members of that body are considered, it must be granted that it is the first society in the world.

In

In page 351, the translator has used the word *physician*, where we imagine the author means *natural philosopher*. If our language were re-modelled, it would be proper to annex to the term *physician* its true and legitimate signification: but it can now only be properly and unambiguously used to designate a man who is skilled in diseases, and in the means of curing them.—In another passage, the translator informs us that all *epitaphs* are broken to pieces.—Are these errors to be attributed to ignorance or affectation?

The last chapter contains an account of the exhibition of different specimens of French manufactures, arts, &c. which take place on the last two complimentary days of every year; and the volume is closed with the narration of a Fête at which the Directory, Ministers, &c. were present. Here M. Byggé found himself in company with Madame Bonaparte, and several other ladies who are distinguished by their stations or their personal charms; and he tells us that the Chief Consul's wife is 'very handsome,' more so in his opinion than the celebrated Madame Tallien.

We have been able to extract but a few particulars from this work: but they will suffice to manifest to our readers the interesting nature of its contents, the manner of the author, and the style of the translator.

ART. IV. *Memoirs of Angelus Politianus, Actius Sincerus Sannazarius, Petrus Bembus, Hieronymus Fracastorius, Marcus Antonius Flaminius, and the Amaltei*: Translations from their Poetical Works: and Notes and Observations concerning other Literary Characters of the Fifteenth and Sixteenth Centuries. By the Rev. W. Parr Greswell, Curate of Denton, in Lancashire. 8vo: pp. 211. 5s. Boards. Cadell jun. and Davies. 1801.

THE admirable memoirs of Lorenzo de' Medici, with which the world was lately favoured by Mr. Roscoe, have called attention to the Italian literary heroes of the xvth and xviith centuries, and to the revival of antient lore. The personages, of whom the author now before us has given biographical sketches, are interesting to all lovers of sound learning and classical taste; and though Mr. Greswell has been only a gleaner after Mr. Roscoe in his account of the first and the most extraordinary character in his list, he has contrived to make it both interesting and instructive, to those who may not be previously acquainted with the state of letters at the period in which *Politian* flourished. The narrative concerning this diligent, profound, and elegant critic is, indeed, rendered sufficiently captivating of readers of taste and curiosity.

Such

Such a luminary as Politian must have shone with double lustre in times of darkness; and the strange stories concerning his private life must have been propagated by zealous rivals, whom the transcendent merit of so great a man would naturally create. Few, however, disputed his superior genius and learning, though he was envied and hated for the possession of them: but he had to encounter, also, political foes, who were still more furious in their animosity. His attention to his patron and benefactor, Lorenzo, and to that family, brought on him all the rage of their inveterate enemies. Yet testimonies remain that he was beloved and admired not only by his patron Lorenzo, and Pico of Mirandula, but by many other persons of virtue and piety, who had more opportunities of knowing his character, and of deciding on his morals, than could be obtained by distant foes, and retailers of hear-say detraction.—Bayle has taken great pains to arrive at the truth of the defamatory tales respecting this celebrated man; and having given both sides of warring opinions, fairly citing his authorities, (as he ever does,) he has defended Politian in the most satisfactory manner, from the aspersions of those who could no otherwise get near him, than by lowering him to their own level by false and malignant aspersions:—but he has never been supported with more force, and praised with more eloquence, than by the author of his patron's life.

Mr. Greswell not only presents us with an outline of Politian's literary history and conflicts, and with translations of many valuable fragments of his Latin poetry, but has also inserted extracts from several of his Latin epistles, which are very characteristic. In a letter to Paulus Cortesius, he expresses his dislike of servile imitation, and asserts his own claim to the merit of originality:

“ I hear, (says he,) that you approve of no style of composition, the language and periods of which are not perfectly Ciceronian: (*nisi qui linimenta Ciceronis effingat.*) For my own part, I find the countenance of a bull, or a lion, infinitely less contemptible than that of an ape: though the latter has more resemblance of the human species. Even of those authors who rank highest for eloquence, each has a style peculiar to himself, as Seneca remarks. Quintilian indulges a very just pleasantry, at the expense of certain persons, who fancied themselves nearly related to Cicero, because they had contrived to round a period with the words, “*esse videatur.*” You know how Horace exclaims against the servile herd of imitators. In my estimation, they resemble parrots, or daws; that are taught to articulate words, of which they know not the meaning.—The compositions of such persons, are without animation, or energy:—and display neither feeling nor genius: they are replete with dulness and insipidity: as void of meaning, as they are destitute of true taste. “Your style

style is not that of Cicero," it may be said.—"Perhaps not, nor am I Cicero:—but I apprehend my style is my own."

This observation reminds us of what has been related of Dr. Johnson; who, when he was told that, though he had so highly extolled and recommended the style of Addison, yet he had not made it his own model, replied, "Sir! Addison had his style, and I have mine."

In another letter, to Hieronymus Donatus, Politian laments, with a degree of peevish pleasantry, the misapplication of much of his time; 'which he was compelled to bestow on trifles, and in satisfying the petty requests of the impertinent and obtrusive:'

"Does any want a motto for the hilt of his sword: or a posy for a ring: a memento for his bed-chamber*: or a device for his silver vessels, or even his earthen ware:—all run to Politian: so that there is scarcely a wall, which I have not, like a snail, besmeared with the effusions of my brain. One teazes me for catches and glees for a bacchanalian party: another, for a grave discourse, adapted to some particular solemnity: a third, wants a lamentable ditty for a serenade: and a fourth a licentious ballad for a carnival. This fool tells me his love-perplexities, which I sit like a fool to hear. Another wishes for a symbol, which, while it is perfectly intelligible to his mistress, may serve only to perplex the curiosity of others."

We now copy Mr. Greswell's translation of an exhortation¹ to Wisdom, from the Greek of Politian:—we have not compared it with the original, but the lines are vigorous and poetical:

Ἐς σοφίαν παρακλῆσις

'See dreary NOTUS shakes his flagging wing
'Mid scowling skies,—while BOREAS hastes to fling
His snowy influence round: the grove has shed
Its wither'd honours on the mountain's head:—
Even funeral cypress, and the sombre pine,
(Retain'd their verdure) now their fruits resign.
Yet still productive through the wintry scene
The olive blooms, and laurel ever green.
WISDOM! thy plants no blights of age consume,
Deathless they bud,—and breathe a rich perfume.'

* * Politian's motto for his own bed-chamber, is preserved among his poems.

In poste cubiculi sui.

Blanda quies habitet—duri procul este labores.

'He composed the following for *Jul. Salviatus*.

*Pectoris interpres—genii domus—hospita curis,
Cellula sum domini conscia deliciis.*

*Hic faciet te Juno patrem, Cytherea maritum,
Libertas regem, semideumque sopor.'*

Politian was born in 1454 at Monte Pulciano in Tuscany, and died when only 40 years old: an inconsiderable age for the accomplishment of such various literary labours as embalm his memory! Having undertaken to teach Greek and Latin publicly at Florence, he had pupils of distinction from all parts of Europe; and Lorenzo de' Medici confided to him the education of his children, among whom was Leo the Xth. He was one of the first collectors of Greek and Latin MSS. and became, in aftertimes, the model of critics and commentators on antient authors, in his elegant and judicious observations, illustrations, imitations, and translations into various languages. His own original works, both in verse and prose, are still indisputably at the head of productions in modern Latin.

Giacomo Sannazaro was born at Naples in 1458, and acquired a very exalted reputation by his writings in the Latin language. His poem *de partu Virginis*, his *Elegies*, and *Piscatory Eclogues* in Latin, and his *Arcadia*, in Italian, have long been and still are highly esteemed by his countrymen.

Pietro Bembo, afterward Cardinal, also holds a conspicuous place among the learned of this period. He was born at Venice, in 1470, but was educated at Florence; where he formed his taste, and where his father had been sent on an embassy from the Venetian state. He afterward went to Sicily, in order to study the Greek language under the celebrated *Lascaris*. On the exaltation of Giovanni de' Medici to the Tiara, under the title of Leo X., Bembo, who had acquired great reputation in literature by his writings, both in prose and verse, was appointed by this Pontiff to be one of his secretaries. In his poem intitled *Asolani*, the passion of love is treated with great delicacy in a moral and philosophical point of view. His poetical productions were collected into one volume, and published under the title of *Le Rime*. Among his works, however, that which, at present, is held in the highest estimation by the Italians is intitled *Le Prose*; and, alluding to this work, Apostolo Zeno says that "Bembo was the first who explained to his countrymen the mechanism and construction of their native language." His History of the State of Venice composed in Latin, in 12 books, is written in a style so classical and Ciceronian, that it almost borders on affectation. He was created a Cardinal by Paul III. in 1537, and died in 1547, aged 77.

Fracastorius. The genius of this writer was of so extensive a range, that it embraced almost every art and science. He was born at Verona about the year 1484, and was descended from a very antient and honourable family. Possessing a limited ambition, and being fond of retirement, though by early culture he had acquired such superior knowledge in so many dif-

ferent branches of science, that he may be styled a star of the first magnitude in the constellation which blazed during the age of Leo X.; he was indifferent about fame and fortune, and must rather be ranked among *dilettanti*, than among professors in any of the faculties in which he excelled. Medicine seems to have been his favorite study; and 'his fame, as a physician, was widely diffused: but it has been affirmed that he practised entirely without pecuniary reward.' To his other acquirements, he added profound knowledge in natural philosophy; and he was a mathematician, an able astronomer, an excellent poet, and a notable musician. His *Syphilis* is the most celebrated of all his literary productions, and indeed of all the poems that have been written by moderns in the Latin language. Mr. Greswell has given a masterly translation of a considerable extract from this truly philosophical work.—Fracastor died in 1553.

This volume next presents us with an amiable character of the Latin poet, *Flaminius*, one of the ornaments of the golden age of Leo. He was a native of Imola in Romagna, and was born in 1493. He was honoured with the friendship of Fracastor and Bembo, and was loved and esteemed by all their literary friends. Being heir to no considerable fortune, he was patronized in a most liberal manner by Cardinal *Alessandro Farnese*, nephew of Paul III., who is represented as one of the most enlightened and virtuous characters of his time; and 'we find (says Mr. G.) our poet expressing his gratitude in several of his Latin poems.' He had a delicate constitution, and had arrived only at his 57th year when he terminated his vital journey.

'The Latin style of Flaminio is commended for its parity. His poems combine a graceful facility of manner, and an agreeable turn of expression, with such a degree of spirit as renders them more than ordinarily interesting.

‘ ODE TO MORNING.

‘ From the Latin of Flaminio.

‘ In blushing beams of soften'd light
AURORA steals upon the sight:
With haste-effulgence dart from far
The splendors of her dewy car;
Chear'd with the view, I bless the ray
That mildly speaks returning day.

‘ Retire, ye gloomy shades, to spread
Your brooding horrors o'er the dead;—
Bane of my slumbers, spectres gaunt,
Forbear my frightened couch to haunt!
Phantoms of darkness, horrid dreams,—
Begone! for lo! fair MORNING beams.

‘ Emerging

- Emerging from the incumbent shade,
Her lustre cheers the brilliant mead :—
Haste, boy,—the tuneful lyre,—I long
To meet the goddess with a song ;—
Haste, while the muse exerts her powers,
And strew her smiling path with flowers.
- The violet charg'd with early sweets
Fair MORN ! thy chearful presence greets ;
The crocus lifts her saffron head,
And bloomy shrubs their odours shed ;
Ah ! deign our incense to inhale
Borne on the gently-swelling gale.
- When MORNING's charms the song inspire,
Be mine to wake the warbling lyre ;
Oh, waft, ye breezes, to her ear,
The mingled strains of praise and prayer :
Bid her approve our faint essays,
And teach the offer'd gift to please.
- For ah ! thy beauties to pourtray,
Fair mother of the infant day,—
What time in mildest splendors drest
Thy lucid form appears confest,—
Still must the admiring bard despair,—
O nymph—superlatively fair !
- Thy crimson checks a blush disclose
More vivid than the opening rose ;
Thy softly-waving locks unfold
More lustre than the burnish'd gold ;
The envious stars their lights resign,
And Luna's beam is lost in thine.
- Mortals had lain, without thine aid,
Ingulph'd in night's perpetual shade :
The brightest colours but display
A lustre borrow'd from thy ray ;
And every grace that art can boast
Without thy genial help were lost.
- Fast bound in Lethe's dull embrace,
'Tis thine the sluggard to release ;
Thou wak'st to life the torpid mind,
To deathful slumbers else consign'd :
And pleas'd to share thy tranquil smile,
Man with new vigour meets his toil.
- Betimes the sprightly traveller wakes :
The sturdy ox his stall forsakes,
Patient his sinewy neck to bow,
And bear the yoke, and drag the plough ;
His fleecy charge the shepherd leads
To graze beneath the sylvan shades.

is, too, that lays claim only to a temporary indulgence, as it is proposed at the very moment when it may be brought to the trial, and when, by a further continuation of the survey toward the north, it will probably be determined how far the distribution of the strata of this country affects the direction of gravity. It will indeed be curious to remark what irregularities take place on advancing into the denser strata of the north. The limestone and sandstone strata of the middle part of the island will succeed to the chalk of the south, the primitive and denser strata still occupying the west, at least at intervals, as in Wales, Cumberland, and Galloway. Further to the north, that is, beyond the Tay, the strata become entirely primitive, most of them of the densest kind, and in the interior of the island, with a very few exceptions, continue the same to its most northern extremity. In the survey of Britain, therefore, several situations must occur where the plummet, passing from lighter to denser strata, ought to give indications of some irregularities in the direction of the gravitating force. It will be seen hereafter how far these conjectures are verified by experience.

A remark, that is in no danger of being reckoned hypothetical, is, that the conclusion derived from the comparison of degrees of the meridian, with degrees of the circle perpendicular to it, becomes of necessity more liable to error as we advance into higher latitudes. The reason is, that whatever error is committed in determining the magnitude of $D'-D$, must be multiplied into the square of the secant of the latitude, in order to give its full effect in changing the value of the fraction $\frac{C}{a}$. For it has been shewn, that $\frac{C}{a} = \frac{1}{2} \left(\frac{D'-D}{D'} \right) \sec^2 \phi$; now, if we suppose the error committed in ascertaining $D'-D$ to be in all cases the same, the error of the fraction $\frac{D'-D}{D'}$ will also be in all cases nearly the same, the denominator D' being but little affected either by the supposed error, or by the change of latitude. But this error, which may thus be considered as a constant quantity, when multiplied into $\frac{1}{2} \sec^2 \phi$, gives the variation or error in $\frac{C}{a}$, which error therefore increases, *ceteris paribus*, as the square of the secant of the latitude; so that, on approaching the pole, it increases without limit, and is ultimately infinite. Comparisons of this kind may therefore be expected to give results the more accurate the nearer they are to the equator, under which circle they will be the most accurate of all. Here, again, however, another circumstance must be taken into consideration, viz. that the method of ascertaining the differences of longitude by the convergency of the meridians, so convenient in surveys of this kind, is applicable only in high latitudes. In a trigonometrical survey, therefore, of a country lying much farther south than Britain, a different method of ascertaining the longitudes of places must necessarily be adopted.

The theorems next investigated are those which determine the figure of the earth from the measures of degrees of the

curve perpendicular to the meridian, in different latitudes. In the latter part of his memoir, Mr. P. considers which of the several methods for finding the value of the compression is, under given circumstances, to be preferred.

This paper is very perspicuously composed, and must be interesting to those who are at present engaged in the trigonometrical survey of Great Britain.

A new Method of resolving Cubic Equations. By James Ivory, Esq. — No algebraic form has hitherto been discovered, consisting of finite terms and free from impossible quantities, which represents the root of a cubic equation. Cardan's solution, it is known, has its irreducible case; and it may be extended to all equations by introducing a geometrical construction:—that is, the value of the expression

$$3\sqrt{\frac{r}{2} + \sqrt{\frac{r^2}{4} - \frac{q^3}{27}}} + \&c. \text{ may, when } \frac{r^2}{4} \text{ is } < \frac{q^3}{27}$$

be expressed in terms of the cosine of an arc. This extension of Cardan's rule is effected by what geometers call, the analogy subsisting between the measures of ratios and angles*. Hence it has been long known to mathematicians that, by Cardan's formula, and by the trisection of a circular arc, or by two geometrical constructions, all cubic equations might be solved; and the author of the present new method seems only to have put what had been before discovered under a somewhat different form. If $\tau = \tan \phi$, rad. = 1, and $z = \tan \frac{\phi}{3}$, then $\tau = \frac{3z - z^3}{1 - 3z^2}$; which, reduced to the form of an equation, is $z^3 - 3\tau z^2 - 3z + \tau = 0$.

Again; if, in an equilateral hyperbole, two straight lines be drawn from the centre cutting off sectors, as 3 to 1, and intercepting respectively on a tangent line at the vertex parts τ and z ,

$$\text{then } \frac{1-\tau}{1+\tau} = \left(\frac{1-z}{1+z} \right)^3;$$

which, reduced to the form of an equation, becomes $z^3 - 3\tau z^2 + 3z - \tau = 0$.

* "*De cubicarum equationum radicibus dudum ab Analysis observatum est; vel eas exprimi posse per Cardani regulas, atque adeo per duarum mediarum proportionalium inventionem; vel per divisionem arcus circularis in tres aequales partes, si forte fuerint inexplicabiles per memoratas regulas. Hoc animadvertit Cartesius, sed et ante Cartesium idem observavit Franciscus Vieta sub finem Supplementi Geometriae. Exhinc autem aperte colligitur, qualis sit ordo naturae transeuntis ad anguli trisectionem a trisectione rationis.*"

To the one or the other of these two forms, all cubic equations may be reduced.

We have already said that the principle of Mr. Ivory's solution is *not* 'new':—not a single additional step is made in the doctrine of equations. It is moreover to be remarked that the solution, as given, is by no means direct; and *practically*,—that is, when the numerical value of particular cubic equations is to be exhibited,—nothing appears to be gained by it.

ART. VIII. *Sketches for Country Houses, Villas, and Rural Dwellings*; calculated for Persons of moderate Income, and for comfortable Retirement. Also some Designs for Cottages, which may be constructed of the simplest Materials; with Plans and general Estimates. By John Plaw, Architect. 4to. 1l. 11s. 6d. Boards. Taylor. 18co.

APPROPRIATE edifices must improve the beauty of rural situations; and we are very solicitous of encouraging all judicious attempts to elucidate and diffuse those principles of taste, which ought to pervade the mind of the country-gentleman and the architect, in the erection of villas and cottages. The town-house and the country-mansion have distinct characters. In the former, the best application of a limited and formal space is the chief point to be considered; and in order to obtain the requisite accommodations, we are obliged to pile story on story: but in the latter, this necessity does not exist:—here, also, we have choice of situation; and respect is to be paid to prospect and scenery. The object of the architect, therefore, in this case, should be to make his operations harmonize with the beauties of nature; and in doing this he should always consult the genius of the place. He should be particularly careful not to copy those square masses, which necessity obliges him to erect in the streets and squares of great cities. Elegance of outline should be studied, as well as internal convenience; and here a wide field is opened for the display of taste. Not only in large mansions, but even in the humblest cottages, taste may be exhibited; and it is with the commendable design of assisting gentlemen in the judicious expenditure of their money, that the work now before us, and similar preceding publications, have been offered to them.

Mr. Plaw does not agree with some of his brethren, who have recommended the mis-shapen cottage, or country-house, which consists of incongruous parts. Poverty and ignorance associated have produced buildings of this kind: but he is of opinion that they are not objects for our imitation.

* I am aware (says he) that some persons think dwellings on an humble scale, and cottages, ought to be irregular in their forms, and broken

broken in their parts, taking certain structures for examples, which, in my opinion, should rather serve as beacons of danger, warnings of bad taste. What man of genius would think of building a new house, having the patchwork and bungling appearance of an old one? Such, to be consistent, will no doubt add the props and shores usually attendant on such structures.'

This well-meant hint ought to be duly considered, lest ideas of the picturesque should degenerate into absolute deformity. Mr. P. offers designs constructed on the principles of symmetry and correspondence of parts; and some here exhibited, even on a small scale, seem to unite both beauty and convenience. While he condemns patchwork and incongruity, however, we were surprized to see him (in plate xi.) designing a cottage possessing some internal comfort, and having a handsome bow with gothic windows, deformed by the rude trunks of trees substituted for pillars, or rather pilasters, at the angles. This coarse material does not harmonize with the gothic members. It may comport with a shed or a roof-house, or with a cottage for a mere peasant, which is to carry the idea of its having been effected by himself: but it is not in character with a building which evinces, in other parts, skill of contrivance and execution.

This work consists of forty-one plates, with explanations of each; and to most of them, *rough* estimates, on a supposed cost of materials, are affixed. The plates are neatly executed, will do credit to Mr. Plaw as an artist, and will assist the student in this kind of architecture. Even though no one of them should be exactly adopted, they may all furnish ideas, and may help to perfect plans which country gentlemen or others may propose to carry into execution.

ART. IX. *Christianity vindicated*, in a Series of Letters addressed to Mr. Volney, in Answer to his Book called "Ruins, or a Survey of the Revolution of Empires." By the Rev. Peter Roberts, A. M. 8vo. 5s. Boards. West and Hughes. 1800.

SOME French writers have discovered an inclination for effecting a revolution in the moral as well as in the political world; and under the notion of promoting human happiness, they would subvert Christianity and the fundamental principles of piety. M. Volney has made so bold an attempt for this purpose, in his work intitled "Ruins," &c. (see M. R. vol. vi. N. S. p. 547.) that he merits the severest animadversions from the advocates of Revealed Religion. In consequence, Mr. Roberts has exposed his ignorance and false reasoning, and has vindicated a cause against the attack of an infidel, which wants little vindication when it is fairly exhibited and well understood: but the misfortune is, that what is commonly assaulted

under the name of Christianity bears scarcely any resemblance to the divine system promulgated by Jesus Christ.

We cannot minutely follow Mr. Roberts in his examination of M. Volney. All that our confined limits will permit us to do, on this occasion, is to exhibit a few specimens of the Volneyan system, and of its refutation by the Christian divine. Omitting the doctrines relative to politics, we pass to those respecting theology.

' You, Sir, (says Mr. R., addressing himself to M. Volney,) triumphantly ask, *why are we to pray to a God who is without variableness?* A sophistical question is no great credit to any argument, much less on a serious subject. The absurdity corresponding to the question is your own. If the nature of the Deity be invariable, how or whence does it follow, that there is to be no variety in his actions? Now, Sir, neither you nor any man can prove his immutability to be such as to exclude a variety of action and means to the same end; and on this ground alone prayer is justly addressed to him; not indeed to alter what is decreed, for that would be absurd, but to determine to a particular end what is not previously absolute.'

This common objection to prayer is perhaps more fully combated by the following observations of a late writer: "God's unchangeableness, when considered in relation to the exertion of his attributes in the government of the world, consists, certainly not in always acting in the same manner, however cases and circumstances alter; but in always doing what is right, and varying his conduct according to the various actions, characters, and dispositions of beings. If, then, prayer makes an alteration in the case of the supplicant, as being the discharge of an indispensable duty; what would, in truth, infer changeableness in him, would be, not his regarding and answering it, but his *not* doing this."

Mr. R. thus farther addresses his opponent:

' You assert, Sir, that "there are absolutely no other monuments of the existence of Jesus Christ, as a human being, than a passage in Josephus, a single phrase in Tacitus, and the Gospels." (Note 37.) This, Sir, is not true. There is another passage in Suetonius, lib. 5, cap. 25, another in Pliny's letter to Trajan, besides the *twenty-one* Epistles of the Apostles, and all the passages on the subject in the works of the fathers of the first century, where they abound, and the Jewish Talmud, (see Grotius, on the truth of Christianity, lib. 2: chap. 5.) and yet, Sir, you dare to say, there are absolutely no other. The testimony of Julian you will not surely contest, for though not so early as the others, no one had a better opportunity or power of enquiring into the fact, and exposing it, or a greater wish to do it.

' There is in Josephus *another* passage besides the one you allude to, one which *has never been disputed*, and in which he mentions Christ as a *well known character*. Speaking of St. James, the just, Josephus says, he was the brother, *τοῦ λεγομένου Χριστοῦ*, of him who is called Christ. Antiq. lib. 20. chap. 8. This is full proof of the *real existence*

isence of Christ upon earth, in the testimony of Josephus himself. And what do you alledge against all these? A sectary of the third century: and what does he say? "All the world knows that the Gospels were neither written by Jesus Christ nor his Apostles." Here then, though he asserts one falsehood, he admits what you contend against, viz. *the existence of Jesus Christ as man*. The Gospels were not indeed written by him, but that two of them were by his Apostles, *all the world*, if I may repeat so silly an expression, is so far from knowing, that it knows the reverse to be the fact, attested by the fathers of the preceding centuries, as may be seen in Grotius, and Burnet, and other writers on the subject.

Though the present author only terms his work *Christianity vindicated*, he has not abandoned the O. T. to M. Volney's attacks; for he has discussed, with much labour and learning, that writer's bold assertions respecting the Mosaic history. The object of the French traveller is to represent this history as no other than a mythological account or explanation of the constellations, and in course written subsequently to their arrangement. On the other hand, Mr. R. states a variety of considerations to shew that

'The history of the fall must have preceded the arrangement of the constellations; and when to this is added a tradition of a fall from a happy state to a state of moral evil, as universal as ancient history, which from its being found in the new and old world, as well in Mexico as in Egypt, and on the banks of the Euphrates and the Ganges, in Siam and in Japan, and from its uniformity must have been derived from one source, extant before the confusion of languages, it is not a mangled scheme of astronomy, or imperfect surmises formed on a maimed hypothesis, that is to subvert the faith of a Christian.'

While Mr. Roberts was combating a faciciful hypothesis, we think that he ought to have very carefully avoided every thing of the same nature in his own details and illustrations: how far he has done this, we leave our readers to infer from the following extract:

'If the period I have ventured to assume, as that of the delineation of the sphere, be correct, the equinoctial intersection must, at the time of the creation, have been nearly at its entrance into Taurus; and more certainly at the time of the deluge it must have been at the end of its progress through that sign, or so near it as to make the end of the sign the most obvious note of its situation; and hence the ♉, which I believe was the ancient mark of this sign, is easily explicable. Kircher * says, (on what authority I know not) that this mark means, "Divinæ mentis in rerum omnium productione motum ac diffusionem."—*A motion and diffusion of the divine mind in the production of all things*. It may, perhaps, have this signification, as denoting

* Obelisci Interp. ed. Romæ, 1666, p. 44.*

what I believe it does, the new order of things from the flood. The mark is, however, evidently composed of three parts \cup , O, and +, which I would interpret thus: \cup , a boat; O, the earth; and +, the intersection of the colure and equinoctial; whence it will signify the place of the colure, when a single boat * or vessel was on the earth, i. e. at the time of the deluge. Besides this sign, Kircher has another of half a bull and half a ram, which seems to denote this same epocha of the deluge. The component parts of the above sign have, indeed, since been divided between Taurus and the planet Venus, and the entire applied to Mercury, the symbol of the inventor of science. That Venus was a deity, the symbol of the deluge, is evident from her image as the Dea Syra, which is very nearly the same with that of Vishnoo, in the first of his incarnations. The three signs γ , ϱ , and ξ , do therefore belong to the same event, and that event was the deluge.

• It appears to us that the author is not always sufficiently guarded in his assertions:—but, on the whole, he treats M. Volney with civility; and his strictures merit not only that gentleman's attention, but the consideration of Mr. Thomas Paine, to whose *Age of Reason* they are in part a reply.

Mr. Roberts thus sums up the contents of his Vindication:

‘ In examining the traditions of various and distant nations, they are found to concur fully in the substance of one original tradition; that their creeds are so far from being contradictory, that in the most decisive particulars they agree in the existence of our Supreme Being, the Creator and origin of all, in his having given a revelation to mankind in the tradition of an age of purity, of a fall, and of the deluge; (in that of the last, so circumstantial as to identify it decisively;) in the promise of a future deliverer, in the prediction of a future life of reward to the good, and punishment of the wicked. In these, Sir, all that have records or traditions of authenticated antiquity agree and confirm the scripture; and prove that in the scripture only is the history clear and express; that in the rest, it is involved but not lost in fable; and we conclude without hazard of a proof to the contrary, firmly and securely, that the scripture history is truly the word of God, that the heavens and the earth unite their testimony to it.’

The doctrines and morality of the Gospel are also vindicated against the misrepresentations of M. Volney; who evidently

* If the crescent were erect, I should be inclined to interpret it; the sun and moon in conjunction at the solstice, the time when the tropical year may be supposed to have begun periodically; and that Mercury Thoth, to whose name it is now affixed, was the discoverer of it. If it be considered as γ , the mark of the sign Taurus at the equinox, it will still refer to the time of the deluge. The exposition given in the text seems to me to be the most appropriate.

views it through a false medium, and condemns under the influence of misapprehension.

A separate half-sheet of corrections and errata is given with this work.

ART. X. *General Biography*; or Lives, critical and historical, of the most eminent Persons of all Ages, Countries, Conditions, and Professions, arranged according to alphabetical Order. Composed by John Aikin, M. D. Mr. Nicholson, and others. Vol. II. 4to. 11. 11s. 6d. Boards. Johnson, Kearsley, &c. 1801.

IT is with pleasure that we see this valuable work, (of the first vol. of which we gave an account in the M. R. for Nov. 1799, p. 241,) in so promising a state of continued publication, according to the usual alphabetic form of productions of this kind.

There was reason for apprehending that the loss of so ingenious and so industrious a contributor as Dr. Enfield, might have been severely felt by the gentlemen associated with him in this undertaking: but that loss, great as it undoubtedly was, has been well repaired by his successors to the vacant seats at this Literary Board. The name of Mr. Nicholson will be found in our transcript of the title-page at the head of this article; and that of another respectable character appears in the advertisement prefixed to the present volume, viz. the Rev. Thomas Morgan, of London. By the last named gentleman, the Theological and Philosophical Department will henceforth be filled.

As a specimen of the style and manner of Mr. Nicholson, we may extract the life of the late learned and justly celebrated astronomer, Dr. Bradley:

* Bradley, James, an eminent astronomer, was the third son of William and Jane Bradley of Shireborn in Gloucestershire. He was born in the year 1692, received his early education at a school at North Leach, was admitted a commoner of Baliol-college at Oxford the 15th March, 1710-11, took the degree of bachelor of arts, October 24, 1714, and that of master on the 21st of January, 1716-17. He was ordained a deacon in May, 1719, and admitted to priest's orders in July the same year, by the bishop of Hereford, who made him his chaplain, and gave him the vicarage of Bridstow in Herefordshire. The honourable Mr. Molyneux shortly afterwards procured him the sinecure of Landewy Welfry in Pembrokeshire.

* Mr. Bradley, however, gave the preference to astronomy over the studies of divinity; and this appears to have been the reason why he never enjoyed more extensive preferments in the church than the above. He was encouraged and assisted in his mathematical pursuits by his uncle Dr. James Pound, who at that time resided at Wansted in Essex, where our astronomer began that series of observations which

which led to the great discoveries which have rendered his name so universally famous.

On the 31st October, 1721, he was chosen Savilian professor of astronomy at Oxford upon the death of Dr. Keil. Upon this promotion, he resigned the living of Bridstow, and also the sinecure of Landewy Welfry, and devoted his mind exclusively to astronomical pursuits. In 1724 he communicated to the Royal Society some observations on a comet which appeared at the end of the preceding year; and in 1726 he communicated to the same body, of which he had become a fellow, a paper respecting some comparative observations on the first satellites of Jupiter, made at Lisbon and in England.

In the year 1728 he published his theory of the aberration of the fixed stars, the history of which discovery affords an admirable instance of accuracy in observing, caution in the developement of causes, and sagacity in discovering them. His original aim in observing the transits of fixed stars near the zenith was to ascertain their annual parallax, and by that means not only to determine their distance within certain limits, but afford an experimental proof of the motion of the earth in its orbit. To illustrate this research and discovery in a familiar way, it may be observed, that if a planet be supposed to revolve in a circular orbit round the sun, and its diurnal motion for the sake of simplicity be overlooked, a star in the pole of that circle would not be seen from the planet in a line perpendicular to the orbit, but always in a line inclined towards the sun, on account of the angle of its parallax. And consequently as the planet revolved in one direction, the star would seem to describe a circle in the heaven in the same direction, the diameter of which would be greater, the less the absolute distance of the star. But the result of Mr. Bradley's observations were not such as would have been occasioned by parallax. The deviation of a star supposed to be in the pole of the ecliptic was not towards the sun, but towards the region to which the earth's annual motion was directed at the time of observation. A considerable series of observations and several comparisons of the laws of the phenomena with such hypotheses as seemed most applicable, were required to be made before any deduction could with certainty be established. After the completion of a year, it was found that all the facts were perfectly reconcileable with the assumption of an observable ratio between the velocity of light and that of the earth in its orbit. The allusion of Clairaut serves to explain his notion with admirable perspicuity. Suppose a shower of small particles, for example drops of rain, to fall perpendicularly to the horizon, and a strait tube to be supported in the same upright position; it will then be evident that whatever drops may enter the upper orifice of the tube, will pass clearly through without touching the sides: but if the tube be carried along parallel to the horizon, the drops will not pass clearly through, notwithstanding the vertical position is preserved; but they will strike against the side of the tube. To prevent their striking, it will be necessary to incline the tube towards the same direction as that of its motion, and this inclination must be so regulated that the lower end of the tube shall arrive immediately beneath the place occupied by the

the

the upper end in a time precisely equal to that employed by a drop of the rain in passing through the tube. That is to say, the deviation of the tube must be such, that when its length represents the velocity of the drop, the horizontal difference between the positions of its upper and lower end shall represent its own velocity. Or, in mathematical terms, the velocity of the drop to that of the tube will be as radius to the sine of its deviation from the perpendicular. We may now dismiss the gross objects of sense, and instead of the tube substitute the axis of a telescope, and for the drops, the particles of light passing along that axis. If these particles do indeed pass instantaneously as to sense and observation, their entrance and emission from the tube will not perceptibly differ in point of time, and no inclination of the tube will be necessary, whatever may be its perceptible velocity; but if the velocities of the light and of the telescope be comparable, it will be requisite that the tube should be inclined towards the direction of its own motion. Mr. Bradley found that such an inclination is in fact required; and that a star in the pole of the ecliptic would apparently describe a circle of $40''$, $\frac{1}{4}$ in diameter round that pole in a year. The half of this is the inclination of the telescope, and its proportion to radius is as 10210 to 1, from which it is deduced, that light employs $8' 12''$ in passing from the sun to the earth. The agreement of this velocity of light with that inferred by Roemer from the equation required to be applied to the motions of Jupiter's moons, according to the earth's position, is a strong evidence of its truth; and shews besides, that the velocities of the direct light of the stars, and the reflected light of the planets, are the same. This apparent change of place of the stars is called their aberration. Its cause has been universally admitted by astronomers, and the conspicuous merit of the discoverer insured him the friendship of lord Macclesfield, sir I. Newton, Halley, and other eminent characters.

He was appointed lecturer of astronomy and experimental philosophy in the university of Oxford in 1730, the duties of which he performed till within a few years of his death. In 1737, he published in the Transactions some observations on the comet which appeared in the spring of that year. The great Dr. Halley had so much esteem for Mr. Bradley's talents and acquisitions, that he was particularly desirous of his succeeding him as astronomer royal, and even formed the project of resigning in his favour; but was prevented by death from accomplishing his design. On this event, however, he obtained the appointment in the year 1741, and was at the same time honoured with the degree of doctor of divinity by diploma from Oxford. In the year 1744 he married Mrs. Susannah Peach, by whom he had one daughter, who survived him.

The established fame and honourable situation of Dr. Bradley, caused no relaxation in his beloved studies, nor his industry in observation. In 1747 he communicated another very important astronomical discovery to the Royal Society, of the nutation of the earth's axis, which was printed in the Transactions. The excellent instruments of George Graham in the hands of this great man, whose accuracy and vigilance in ascertaining their limits of error were extreme, served to detect periods of change in the motions of the heavenly bodies,

bodies, which had eluded the observations of every former astronomer. It would lead us too far into the famous theorem of the *Tria Corpora* (*Newton's Princip. I. prop. 66.*) if we were to attempt to give a full explanation of this nutation, of which the existence and quantity were first ascertained by Bradley. He found that the inclination of the earth's axis to the plane of its orbit, which is about 23½ degrees, is not constant, but varies several seconds backwards and forwards, and that the period of this variation is nine years. He determined its cause from the doctrine of attraction.

• If the earth were a perfect sphere of the same density throughout, the attraction of the sun would have no other effect than to retain it in its orbit; but as this is not the case, because the earth is flattened at the poles and swelled out at the equator, we may consider this planet as if it had the figure of a ring, or rather as if a protuberant ring were fastened upon its equator, and influenced its motions. Half of this ring is above the plane of the orbit, and half below that plane. In every case, the nearer half of this equatorial ring will be more, and the remoter part less, attracted by the sun, than according to the medium force which retains it in the orbit; but when the sun is in the plane of the ring, that is to say, at the equinoxes, this inequality will not tend to disturb its obliquity. When the sun is in the solstices, the excess of attraction on the nearest part of the ring will tend to draw it towards the plane of the orbit, while the excess of centrifugal force on the opposite half will have the same effect; and in every other position a like consequence will ensue, though in a less degree. Hence the obliquity of the earth's axis will be twice increased and twice diminished in the course of the year. And as the earth's orbit is elliptical, and the irregularity produced during its course through the shorter 180° of its orbit is not entirely balanced by what happens in the more remote part, the parallelism and obliquity of the earth's axis will be subject to a slow change.

• The minute effect of this difference of the sun's action on the earth is seen in a long series of years in the precession of the equinoxes, and the obliquity of the ecliptic. But the nutation observed by Bradley, which passes through all its changes in nine years, depends on a like difference of the actions of the moon on the nearer and remoter parts of the same protuberance. Though the moon is almost incomparably smaller than the sun, yet on account of its proximity to the earth, this difference amounts to a much greater quantity, as is also seen in the phenomena of the tides. Astronomers are aware that a similar action of the sun upon the moon causes the nodes of the lunar orbit to pass through every point in the ecliptic during about eighteen years. The line of the nodes will therefore arrive at the same position every nine years, and consequently the irregularities of the nutation will all be comprehended within this last period.

• These discoveries, of which the nature of our work could allow but a slight sketch, will show the comprehensive genius of Bradley better than any general encomiums. The Royal Society evinced their sense of the value of the latter discovery, by rewarding him with their annual medal. No man better knew the value and importance of a good

good instrument; and to him it is that the world is peculiarly indebted for the new naval quadrant, and other instruments set up at the royal observatory at Greenwich by the well known John Bird. At the doctor's request, upon the yearly visitation of the Royal Society, that body represented the advantages of new and accurate instruments to his majesty George II. who, in the year 1748, granted one thousand pounds for that purpose, which was laid out under the direction of an astronomer.

• In this year 1748 he was chosen a foreign member of the Royal Academy of Sciences at Paris, and nearly at the same time he became entitled to bishop Crew's benefaction of 30*l.* a year to the lecturer in experimental philosophy at Oxford. He was also a member of the Academy of Sciences and Belles-lettres at Berlin.

• It appears to have been some time in the year 1751 that the valuable living of Greenwich becoming vacant, was offered to him on the part of the king, on the supposition that it would be particularly convenient on account of its vicinity to the royal observatory. But the unaffected integrity of the doctor induced him to decline this preferment, because he thought "the duty of a pastor was incompatible with his other studies and necessary engagements." The king, however, would not be defeated in his generous purpose, but granted him a yearly pension of 250*l.* (Feb. 15, 1752), which was continued to his death by his present majesty, and has since been regularly paid to the astronomers royal.

• In 1752 he was elected of the council of the Royal Society. In 1754 he was appointed a member of the Academy of Sciences at Petersburg, by diploma from the whole body; and in 1757 he was chosen a member of the Academy of Sciences at Bologna. In the same year were published in the Philosophical Transactions his observations on the comet which appeared in the months of September and October that year.

• Dr. Bradley's health continued in general excellent, notwithstanding his unremitting assiduity in the pursuit of his studies and observations. But about two years before his death he became very low spirited, and distressed with an apprehension that he should survive his rational faculties. This calamity did not happen, and it is probable his fears might have arisen from an observation of those lapses of memory which at all times of life occasionally happen to men who keep their faculties too long in a state of exertion, but more particularly to such as are advanced in life, and do not vary their pursuits. He became very infirm in the year 1760, and about the end of June, 1762, he was attacked with a suppression of urine, in consequence of an inflammation of the kidneys, which put a period to his life on the 13th of July following, in the 70th year of his age. He was buried at Mitchin Hampton in Gloucestershire.

• The public character of Dr. Bradley, as a man of science and discernment, is well established by his works. His private character was in every respect estimable. Temperate in his enjoyments, mild and benevolent in his disposition, indifferent to the calls of wealth, distinction, and even of fame, he was indebted to his uncommon merit alone for the friendship and regard of the most eminent men of his time.

time. His manner was engaging and communicative, and his language in conversation clear, impressive, and fluent, though he was rather more disposed to listen than to speak. That he published so little may perhaps be ascribed to his scrupulous accuracy, which rendered him diffident, or more probably to the calm and placid temper of his mind, which did not strongly urge him to solicit that attention he could at pleasure command. His observations made at the royal observatory during twenty years, comprised in thirteen folio and two quarto volumes, unfortunately for the interests of science, were taken away at his death by his representatives, who, upon preparations being made by government for recovering them by process of law, presented them to lord North, by whom they were transferred to the university of Oxford. It is an additional misfortune to the scientific and commercial world that they have remained in the hands of that learned body for upwards of twenty years; and though it is stated that they are in the course of publication, it may yet be long before the astronomical world shall possess them.—*Biogr. Brit. Hutton's Math. and Philos. Dict. Phil. Trans. Bird on Naval Quadrants. Proceedings of the Board of Longitude relative to Dr. Bradley's Observations, 1765 to 1795, published in folio.—W. N.**

This volume carries us as far in the alphabet as the article *Civoli*, the Painter. Our present engagements do not allow of a more detailed account of it, but we shall not fail to announce the subsequent volumes to the public, as they appear.

ART. XI. Mr. Pennant's *Outlines of the Globe*.

[Article concluded from pp. 37—47.]

THE fourth volume of this work presents a view of the Malayan isles, New Holland, and the Spice Islands. A chart is prefixed, which conveys a good general idea of their relative position: but the most correct chart of the isles of the Indian archipelago, hitherto published, was given with the first Number of the Grammar of the Malayan language, a work to which we have recently adverted*: though it is much to be lamented that the minute scale, to which it was very injudiciously reduced, greatly detracts from its utility.

Mr. Pennant commences his survey with the following geological observations, which are applicable to the whole contents of this volume:

“Those who consult the map of this portion of the globe, will instantly perceive the effects of the rapid discharge of the waters after the destruction of the old world by the deluge, aided by volcanic fury. Volcanoes, or vestiges of volcanoes, are to be seen in most parts to this day; amazing caverns, mountains piled upon mountains, with all the testimonies of the mighty confusion; we know not the antece-

* See Rev. for August last.

dent form, but it was evidently shattered by that great event. From the top of the bay of Bengal to the very pole, it swept every thing before it, and left a vast expanse of ocean, uninterrupted by any land, except the diminutive spots of Kerguelin islands, or the lesser speck of Amsterdam and St. Paulo.

‘ From Cape Negrois, the southern point of Pegu, the waters seem to have been impelled towards the vast Pacific ocean. The isles of Andaman and Nicobar first shew that tendency in a slight degree; all the peninsula of Malacca was affected in a higher. The island of Sumatra follows the curvature of that part of the continent. At Java it begins to shew the fury of the attracted course of the waters towards the east. Java, Cumbra, Timor, the Molucca islands, and New Guinea, were formed by their influence. At New Guinea, the torrent took a southerly direction, and rent into fragments all that part of the primitive world, even to the remotest of the Society islands, which, like the train of a comet, shew the innumerable remnants of land, most evident witnesses of its course. The amazing island of New Holland resisted the force, and continues more worthy of the name of a continent. New Zealand remains divided from all the rest; to the east is sea as far as America, and remote as the pole itself on the south. The north part of the vast Pacific is contracted by the approximation of Asia and America. The crescent of islands from Alaschka to Kamschatka mark the ancient union of the present continents. The flood formed, from the south of Kamschatka, the Kuril isles, Matmay, and Japan, Liquejo and Formosa, the Philippine islands, the great Borneo, and all the groups scattered over the ocean to the north-east, such as the Pelew, the Ladrões, and the Carolinas, and the range named after Lord Mulgrave. Such is the hypothetical view of this face of the globe.’

This hypothesis, which seems to imply that most of the islands above mentioned were previously connected, or possibly formed one great continent with the rest of Asia, is but slightly supported by the phenomena adduced. That the longitudinal extent of the islands in the bay of Bengal is generally from north to south, while that of the islands in the ocean is from east to west, may arise from an uniform and constant, as well as by a temporary and violent, impulsion of the circumambient fluid. It might be produced by a sudden influx of waters into the bay, as easily as by their sudden efflux; and there are no traces of volcanic eruptions in the countries which form its limits, to authorize the supposition of any violent propulsion originating in the bottom of the bay.—It is time, however, that we should carry our readers through a few of the islands which form the subject of this volume.

Mr. Pennant commences his survey by an account of Sumatra; an isle which was fortunate in having found, in Mr. Marsden, an historian who left few desiderata relative to its moral, physical, or political condition. ‘ Some of its mountains are of vast height; Ophir, situated immediately under the

the line, is 13,842 feet high, or two miles, and one thousand and ninety-four yards. No snow is ever seen on it, yet the inhabitants of all the chains are, like those of other Alpine regions, subject to monstrous wens, or goitres; yet these people are not infested with any particular disease, the result of the tumors.' Gold, copper, tin, and coal, are numbered among the productions of Sumatra. Naptha is also found there; and 'saltpetre is procured in abundance out of the vast caverns with which the island is hollowed, and is extracted out of the dung of the swallows called Layang Layang, which build by thousands in the roofs. These seem to be the kind which make the esculent nests.' The latter circumstance, we apprehend, is a mistake.—Buffaloes are used as beasts of draft; a practice which might be advantageously introduced on the neighbouring continent. The wild bear, rhinoceros, and elephant, inhabit its majestic forests; above whose heads a vast variety of the digitated species of quadrupeds play among the lofty branches. 'The Orang Outang is said to be found in Sumatra; which is probable, as he is met with in the adjacent islands.' Tigers are numerous and destructive. The large bird named cassowary is related to the ostrich, 'but is most local, being confined to the torrid zone, and only to that part which includes this island, Java, Banda, and a few others of this great archipelago. It runs fast, is very fierce when in the wild state; grunts like a hog, and will kick violently like the ostrich. Its food is vegetables, but it will swallow iron, stones, or any thing that is offered.' Mr. Pennant relates that the inhabitants of Japan are fond of curious birds, numbers of which are annually imported from distant countries; one unfortunate virtuoso brought a cassowary: but the Japanese, after having surveyed it, pronounced it a bird of ill omen, and obliged the vessel which brought it instantly to carry it back.—Among the vegetable productions of Sumatra, are pepper, (the great staple of the island,) and the *Calamus Rotang*, or walking cane, vulgarly termed Rattan; 'the specific name Rotang signifies, in the Malayan language, a staff, or walking stick.' Bastard cinnamon grows in abundance; camphor is produced, of a superior quality; also the *Styrax Benzoin*, used in Roman catholic countries as incense; coffee; cotton; and ebony, so highly valued for its beautiful timber;

"*India fert ebum, molles sua thura Sabai.*"

On the authority of Mr. Caverhill, Mr. P. considers Sumatra as the Sabadibz. of Ptolemy. We shall take an opportunity of adverting to his remarks on the geography of that writer, when we have attained the supposed boundaries of his knowledge:

lege: but, in the mean time, to avoid repetition, we shall call the attention of our readers to an observation applicable to the inhabitants of all the islands of the Indian ocean, west of New Guinea. It is of much importance towards the formation of an accurate idea of the moral state of these countries, to discriminate between the Malayas who inhabit the coasts, and the aboriginal natives who were driven by these intruders into the interior country. The Pappuan isles, as they are termed from their contiguity to Pappua or New Guinea, seem to have set limits to the wandering courses of the Arabian navigators; who, under the name of Malayas, now occupy the maritime coasts of the Indian isles. No accurate estimation of their relative population can be formed from the researches hitherto made; in the smaller isles, it is probable, they have nearly exterminated the Aborigines: but we are disposed to think that their numbers are still prodigiously inferior to those of the latter; whose origin, if we may pronounce from the vestiges of Sanscrit preserved in the Malayan language, and in the names of places, must have been from the continent of Hindustan. Respecting these people, little is known; the antients stigmatized them with the appellation of anthropophagi; and the same appellation has been bestowed, down to our own time, on the inhabitants of the Nicobar isles, whom we now know to be in the highest degree hospitable and inoffensive. The necessity of resisting the incroachments of their Malayan neighbours may have contributed to render them fierce, vindictive, and suspicious: but those travellers, whose conduct was kind and conciliatory, do not appear to have considered them as barbarous. The fable of the lion and the picture should never be totally forgotten, in perusing travels into countries termed barbarous; if lions had been the painters, the representation would have been reversed; and if these supposed barbarians were writers, they would in all probability appear "more sinned against than sinning." The predatory ferociousness of the Malayans, and the crafty and systematic cruelty imputed (with what truth we know not) to the Dutch, might naturally excite in the people, who were exposed to their outrages, a spirit of resentment and vengeance.

The author's account of Java contains little besides an appalling description of the cruelties of the Dutch; a representation which we hope is exaggerated. The fatal effects of the climate of Batavia, however, are scarcely susceptible of exaggeration: but that of the deadly tree, the *Upas*, we know to have been derived from a suspicious source. It has, however, given birth to some fine verses inserted in the work before us:

Where

- Lull'd in his fair one's gentle arms,
The lover if thy voice alarms;
If with regret the attractive couch
He leaves and blames thy near approach,
Still let him deem thy call unkind,
And cast the "lingering look behind."
- His be the illusive joys of night;
My boast shall be the chearful light:
Give me to watch the orient ray,
And hail the glad return of day;—
And long, oh long—ye Pow'rs divine
May such reviving joys be mine!

The *Amalthei* were three brothers, who flourished in the earlier part of the sixteenth century, and were possessed of similar literary abilities.—As, however, we cannot dwell longer on this agreeable and amusing work, having already bestowed on it more attention than we can always afford in analysing so small a volume, we shall conclude our account with recommending it to the perusal of all those lovers of literature, who are curious in exploring every vestige of the productions which contributed to illustrate the happy æra of the *Medicean family*. We are sorry that critical integrity obliges us to qualify our praise by censure of any kind: but, in perusing these compositions, our ears have been frequently offended by dissonant rhymes, which deform verses that in all other respects are beautiful. A few may be specified for the author's consideration:

Embrace } Essays } Ear } Leads }
Release } Please } Prayer } Blades } These are good
rhymes only in Ireland.

Defile } Smile } These are provincial rhymes.

Soil } Toil } In Cheshire and Lancashire, smile is pronounced *smoil*.

Lore } Couch }
Hour } Approach } These are rhymes no where.

ART. V. *Poems chiefly Sonnets*, by the Author of *Translations from the Italian of Petrarch, Metastasio, and Zappi*. 8vo. pp. 72, 3s. sewed. Robinsons, &c.

THE author of this volume appeared before us in the year 1795, but only as a translator*: now he comes forwards as an original writer, but still *alla Petrarca*.—We have often confessed that we were not partial to the structure of the sonnet: which requires so many qualities of difficult attainment, that, out

* See our xviiith vol. N. S. p. 429.

of Italy not one composition of this sort in a thousand realizes the description which Boileau gives of it, when he says that "the god of verse himself measured its numbers and cadence, prohibiting the admission of one feeble line out of the fourteen of which it consists, and not suffering a word that has already occurred in it to be repeated." Another obstacle arises from the arrangement and quality of the rhymes, two of which only are admitted in the first eight verses. In the Italian tongue, in which similar terminations are so numerous, good sonnets abound: but even in that language, "a chain of noble ideas, expressed without affectation or constraint, is required, with rhymes which present themselves naturally, and with a good grace."—When Englishmen first read a sonnet, their ears are generally dissatisfied. The disposition of the rhymes is so different from that to which we have been accustomed, that we never enjoy this texture till we have habituated ourselves to bear the disappointment primarily excited.

Obscurity also seems to belong to the sonnet, which is seldom clear at the first reading; and the poems before us do not appear to be deficient in that characteristic. As the xvth sonnet may be regarded as one of the best; and the most intelligible, we shall present it to our readers:

- Has she not charms to warm the coldest breast?
- Has she not grace that every charm endears?
- Has she not sense beyond her tender years,
- Sense but by trembling modesty repress'd?
- Why then does reason still a doubt suggest?
- Why bid me watch each impulse that appears,
- Each thought that she betrays, each look she wears,
- And hope to find beneath some lurking pest?
- O when shall she at length, unrivall'd queen,
- Boldly assert her worth, and make me see,
- Adorning, yet unstain'd, the world's gay scene:
- Better at once a very slave to be,
- Than buy by low distrust, and jealous spleen,—
- This poor precarious boon of liberty.

The complaints of the author in most of the other sonnets are rather dark; apparently alluding to private transactions, not illustrated by any outline of his history. His great model, Petrarcha, had but one subject of sorrow, and one mistress: but the present writer's sufferings and disappointments are numerous and multiform.

In sonnet v. the expression, 'but when to death we go,' is prosaic; and

• No mad attempt to which we *can't* be wound,' is not very good prose. *Can't* is a vulgar colloquial contraction, not a poetical elision.

The

The *vith* may be numbered among the best of the sonnets: but the *vith* ends with another *can't*—which might have been thus avoided:

‘Virtue may pity me, but not arraign.’

We transcribe the sixth:

‘Ah! boast no more to cure love’s pois’nous smart,
Ye traitors to your cause, ye faithless Nine!
Yourselves disarm us first, then point the dart,
You but to quicken it, the sense refine.
Softly while you your magic strains impart,
Her charms around my inmost fibres twine;
As melts the tuneful note, so melts my heart,
Till lost in am’rous dreams it sleeps supine.
Thus all dissolving in ideal bliss.
Too soon I’m waken’d to substantial pain:
Mem’ry recurs, and all her furies hiss;
Yet, though I wake, ’tis but to dream again:
So close the Muses league with her in this,
She prompts their numbers, they her pow’r maintain.’

The revival of capital letters at the beginning of every substantive, we apprehend, will not be approved by the printers, if it be adopted by authors. Since the force of every verse or period lies in the substantives, the capitals indeed prepare the reader for energies both in prose and verse: but the printer had rather that his page should look well, than that it should be well understood; and the rejection of awkward capitals is certainly favourable to symmetry. The restriction of these large letters to proper names, and to the beginning of a period, or of a line in poetry, has now so long obtained, that we, who were Capitally educated, should not be pleased with the look of the page, if thus altered and deformed.

The mixture of the singular and plural pronouns *thou* and *you*, in the same short poem, we can never pass uncensured: (see Sonnet III.) since it must be regarded as a mark of indolence or of bad taste. The extension of one verse into another, and the breaks by a kind of cæsura in the middle of a verse, are here also too frequent, even if intended as imitations of Petrarca. In his sonnets, he seldom, if ever, admits more than two of these breaks: but the author before us, who is professedly of this Italian school, has sometimes four in a single sonnet (as in the XVIIIth.), which makes his verse appear like hobbling prose. In sonnets XIX. XX. XXXVI. and XXXVII. we found the road far from smooth.

In the verses, p. 40, on the death of his brother, the writer’s sorrows are poured forth in clear and uninterrupted streams. His elege, also, on the power of verse in mitigating

woe, in heightening friendship, and in embellishing virtue, is just and pleasing. Our readers shall judge :

' Is there who asks what boon awaits the Muse?
Is there who doubts of verse the heav'nly pow'r?
Such, if he ne'er have felt his genius tow'r,
Or drunk with thirsty lip Castalian dews,
Ask, if e'er virtue deign'd her nobler views
For him to open, or her gifts to show'r?
Ask if he e'er have prov'd, in some sad hour,
The lenient balm which friendship can infuse?
For all that friendship, all that virtue owes *
Lives in the Muse; with her th' enrap'tur'd bard
In secret tells, in secret soothes his woes;
With her each social joy more pure is shar'd,
From her each gen'rous sense exalted flows,
All that the sage has taught, the hero dar'd.'

The sonnets (pp. 59 and 60) on the approach of spring after a long winter, as well as the stanzas on returning to Oxford, (p. 67) have considerable merit; and a spirit of poetry appears in many other pages of the volume, which we have not room to specify. The disapprobation, therefore, which we have expressed in some parts of this article, must be considered as applying to the particular faults by which it was excited, rather than as general censure of the poetical demerits or deficiencies of the author.

ART. VI. *A Treatise on Singing*; explaining, in the most simple Manner, all the Rules for learning to sing by Note, without the Assistance of an Instrument; with some Observations on Vocal Music, interspersed with original Examples, Solfeggi, Airs, Duettos, &c. &c. selected and compressed from the most eminent Authors, both ancient and modern, particularly some beautiful Vocal Pieces of Sacred Music, from the MSS. of Jomelli and Sacchini, never before published, in the Collection of the late James Harris and W. B. Earle, Esqrs. Salisbury; with Directions, for a graceful Management and Delivery of the Voice. By Joseph Corfe, Gentleman of his Majesty's Chapels Royal, and Organist of the Cathedral at Salisbury. Folio. 10s. 6d. Sold at the Music Shops, and at Salisbury.

THIS book has been mislaid and forgotten, or we should sooner have taken some notice of it; for, though the title-page (or rather table of contents) has no date, we recollect that it has been in our possession a very considerable time.

In the quotation which occurs at p. 1, we are surprized to

* All that virtue owes] i. e. owns. Shakspeare, Othello.

—that sweet sleep

Thou owedst yesterday.

see that an Irishism had escaped so elegant a writer on his art as the late Mr. Avison; when, in speaking of the pleasure received from sounds, he says,—“It is their peculiar and essential property, to divest the soul of every unquiet passion, to pour in upon the mind a *silent joy*!”—the *silent joy* of sound must be a *dear joy*. This little slip of the pen excepted, the passage is elegant and striking.

Mr. Harris's eulogy on vocal music is admirable; and Dr. Beattie's discriminations spring from the feelings of no vulgar mind.—In p. 2d, at the bottom, for *antient*, we should read *old*. By *antient*, we understand nothing younger than Boethius, the last writer who was enrolled with the antients. Morley and Peacham are moderns, compared with writers of the preceding century.

In speaking of singing in *time* and *tune*, we apprehend that the author will not quite satisfy fastidious vocal critics, who are attendants on the opera, and are accustomed to Italian singing, or to performers of the Italian school.—The *curling* of the notes is not an expression to be found in the musical technica; though we have somewhere seen or heard the old fashioned graces of the 16th century compared to the *curls* of Sir Cloudesley Shovel's wig in Westminster abbey.

We should not have understood that to sing *gracefully* meant to embellish a song with *graces*, if Mr. C. had not admitted us into the secret. The gracefulness of singing we have been accustomed to refer to personal carriage, ease, and exemption from grimace; and the graceful posture, mentioned soon afterward, explains what is meant by *singing gracefully*. Tosi's remark on a duet, which was *torn into atoms* by singing too *gracefully*, might lately have been applied in the case of a duet of Marcello's sacred music.

We fear that Mr. Corfe's definition of *voce di testa* will not be very well comprehended, when he talks of the voice ‘*striking from the throat to the head*.’ *Voce di testa* means a voice which is formed in the *larynx*, and passes through the nose, or teeth, instead of coming from the chest.—The *anticipation*, which Mr. C. recommends, is exactly what foreigners call the *English brogue*.—Many of his definitions, however, are correct and useful, and given on indisputable authority.

Mersennus, who is mentioned at p. 7, was a French *minime*, or monk, not an Italian; and therefore the expression *Padre Mersennus* is not correct. It should be *Pere Mersenne*.

At p. 11, we meet with conjecture for conjecture. We believe that the Italians changed *ut* to *do*, in order to have a syllable that ended in an open vowel, instead of the *gag t*, and the

distortion of the mouth which the Italian u occasions, like our oo.

We come now to the plates; having nothing to say to the gammut, time-table, or other characters, which are and must be in all elementary books.

In plate 10. duet IV. are two broken phrases; one of 5 bars, and the other of 15; a violation of the present rules of symmetry.

Plate 11. line 2. bar 1. The last note in the second bar of the second treble is made D instead of C, by the printer forgetting to draw a line through it. The composition of this little duet is not very masterly. The F \sharp rising to G in the 5th bar, and the 7th resolved on the 4th and 8th bar, are neither pleasant nor consonant to rule.

Plate 14. How is the 4th to C natural prepared? 2d line, bar 7 $\frac{1}{2}$, F is not a part of the preceding chord. If the B in the base were figured δ^x_5 , the fourth would be properly prepared: but we rather think that the G* in the treble should be Ab.—In the example of bravura, where is the singer to take breath in the first 5 bars? We see no opportunity for it, without breaking the ligatures or the divisions, till the middle of the 6th bar. A great singer might perform the first 5 or 6 bars with one respiration: but a young singer, unless a *diver*, could not swell the minims and perform 3 bars without drawing breath. There is nothing like elegance in these examples; but they are composed of *every-day* passages, which must be learned first or last; and though they are so plain and common now, they might have been deemed elegant a hundred years ago.

The compositions from Jomelli and Sacchini are still charming; though the style of music is so changed from what it was when they were composed, that they seem to belong to a different system of sounds. Not one chromatic passage is to be found in them! All plain John-trot Diatonic! We have now, however, had such a glut of semitonic dainties and *kickshaws* (*quelques choses*), that we return to plain roast and-boiled with double pleasure.

In plate 35. bars 5 and 6, and 7 and 8, are two 5ths plump and unqualified in the air by Anfossi. What will Mr. Corfe's brother-organists say to them? All that *we* shall say of them is that they offend against rule more than against sensation.

Plate 36. line 2, bar 5, for b, read c. 2d note. Ib. l. 4. b. 1. for *pan*, in the words, r. *pian*. Ib. l. 1 and 2, the words

words of the 3d and 2d bars should be printed thus: *lacci al cor*.—The same, plate 38. *Lacci al* make but two syllables.

Chi lacci al cor non hà.

Who has no chains at his heart,

Or, Whose heart is free.

Mr. Corfe's book would be very useful in teaching the choristers of a cathedral, and would be sufficient for that purpose: but it is too elementary for a singer elsewhere; because more than mere time and tune would be required of singers out of the pale of the church, and *that more* can perhaps be acquired, only by example and imitation. Who could describe, in a book of instruction, the expression of a Pacchierotti in only singing plain notes?—On the whole, the work should scarcely bear the pompous title of a *Treatise on Singing*: the *Accidence* may as well be called the *Art of Poetry*: for what does it teach more than the musical accidence, or the first elements of practical music?

The author's mode of numbering the intervals from a key note, as well as naming them in solmisation, is an useful expedient. It will likewise prepare a student for thorough-base.—The lessons are all useful for time and tune: but no thing more.

ART. VII. *Transactions of the Royal Society of Edinburgh.* Vol. V. Part I. 4to. pp. 116. 5s. sewed. Cadell and Co. 1800.

THIS small publication contains only five papers, of which we shall give an account according to the subjects to which they relate.

CHEMISTRY and MINERALOGY.

Account of certain Phenomena observed in the Air Vault of the Furnaces of the Devon Iron Works, together with some practical Remarks on the Management of Blast Furnaces. By Mr. Roebuck; in a Letter to Sir James Hall, Bart.—This paper commences with some observations made on condensed air in the air vaults of the Devon iron works near Alloa, in Scotland; from which it appears that the plan of blowing furnaces by means of an air vault is a very efficacious method of equalizing the blast, provided that the blowpipe be made sufficiently large, and that too much air be not allowed to escape at the safety-valve.

Mr. R. then proceeds to observe that a great part of the power of the blowing machinery, in blast furnaces, is frequently misapplied in general practice, by throwing air into furnaces with much greater velocity than is necessary: but in

such a case, if this velocity be to a certain degree diminished, the same power, by a proper adjustment of the blowing machinery, will become capable of throwing into the furnace a proportionably greater degree of air; and consequently, if the quantity and intensity of heat in blast furnaces be in proportion to the quantity of air decomposed by the process of combustion, without regard to its greater velocity, the produce of such furnaces must thus be much increased.

Mr. R. had an opportunity of proving the truth of this assertion, by an experiment which he thus relates :

‘ A system of management, of which I did by no means approve, was adopted by the other partners of the Devon Company, soon after the works were begun to be erected; and, in the prosecution of it, they ordered their second furnace to be put in blast, without permitting those measures to be taken that were necessary to provide and maintain a sufficient stock of materials; and also without allowing their blowing machine to be completed, according to the original design, by the addition of its second boiler. As might have been expected, a trial of several months to carry on two furnaces, with only half the power of steam that was necessary, and an inadequate stock of materials, proving unsuccessful, the Company, as a remedy, instead of making up the above deficiencies, ordered one of the furnaces to be blown out, and stopped altogether. This improper measure, however, afforded me the opportunity of immediately putting in practice the plan I have mentioned.

‘ When one of the furnaces was stopped, the other continued to be blown by a blow-pipe of 2½ inches diameter, and the produce of the furnace, for several weeks thereafter, was not 20 tons of iron *per week* at an average. The engine at this time was making about 16 strokes a minute, with a stroke of the air pump, about 4 feet 8 inches long; but when I altered the diameter of the blow-pipe, first to 3, and immediately after to 3½ inches diameter, and regulated the working gears of the engine, so as to make a stroke of 5 feet 2 inches long, and about 19 strokes in a minute, on an average, the produce was immediately increased. It continued to be, on an average of nine months immediately after this improvement, at the rate of 33 tons of iron *per week*, of as good quality as formerly; for during this period, from the 21st November 1795 to July 30, 1796, this one furnace yielded 1188 tons of iron. No more coals were consumed in working the blast engine, or other expences about the blowing machine incurred, and therefore no more power was employed to produce this great effect. It is also of much importance to remark, that the consumption of materials, from which this large produce was obtained, was by no means so great as formerly. The furnace required very considerably *less fuel, less ironstone, and less limestone*, than were employed to produce the same quantity of iron by the former method of blowing; and according to the statements made out by the Company’s orders, as great a change was effected in the economical part of the business.

‘ From

‘ From the success of this experiment, so well authenticated, and continued for several months, I am led to be of opinion, that all blast furnaces, by a proper adjustment of such machinery as they are provided with, might greatly and advantageously increase their produce, by assuming this as a principle, viz. “ *That with the given power it is rather by a great quantity of air thrown into the furnace, with a moderate velocity, than by a less quantity thrown in with a greater velocity, that the greatest benefit is derived, in the smelting of ironstones, in order to produce pig-iron.*” However, it is by experiment alone, perhaps, that we can be enabled to find out the exact relations of power, velocity, and quantity of air requisite to produce a maximum of effect *.’

Experiments on Whinstone and Lava. By Sir James Hall, Bart. F.R.S. and F.A.S. Edin.—We are here informed that these experiments were suggested to the author many years ago, when he was employed in studying the geological system of Dr. Hutton, by the following plausible objection to which that system appears to be liable :

‘ Granite, porphyry, and basaltes, are supposed by Dr. Hutton to have flowed in a state of perfect fusion into their present position; but their internal structure, being universally rough and stony, appears to contradict this hypothesis; for the result of the fusion of earthy substances, hitherto observed in our experiments, either is glass, or possesses in some degree the vitreous character.

‘ This objection, however, (continues Sir James) loses much of its force, when we attend to the peculiar circumstances under which, according to this theory, the action of heat was exerted. These substances, when in fusion, and long after their congelation, are supposed to have occupied a subterraneous position far below what was then the surface of the earth; and Dr. Hutton has ascribed to the modification of heat, occasioned by the pressure of the superincumbent mass, many important phenomena of the mineral kingdom, which he has thus reconciled to his system.

‘ One necessary consequence of the position of these bodies seems, however, to have been overlooked by Dr. Hutton himself: I mean that, after their fusion, they must have cooled very slowly; and it appeared to me probable, on that account, that during their congelation, a crystallization had taken place with more or less regularity, producing the stony and crystallized structure, common to all unstratified substances, from the large granite, to the fine grained and almost homogeneous basalt. This conjecture derived additional probability from an accident similar to those formerly observed by Mr. Keir, which had just happened at Leith: a large glass-house pot, filled with green bottle glass in fusion, having cooled

‘ * If Q be the quantity of a fluid, issuing in a given time through an aperture of the diameter D , V its velocity, and P the power by which it is forced through the aperture: then the area of that aperture being as D^2 , the quantity of the fluid issuing in the given time will be as VD^3 , or $VD^3 = Q$.’

slowly,

slowly, its contents had lost every character of glass, and had completely assumed the stony structure.'

In 1790, Sir James Hall began his experiments; and he found that he could command the result which had accidentally occurred at the glass house: for, by slow cooling, the bottle-glass was converted into a stony substance; and this again, when melted and rapidly cooled, was restored to its original state of glass;—so that the same substance assumed the stony or the vitreous character, according to the mode of its cooling.

Sir James was afterward induced to make similar experiments on whinstone; (under which name, he includes the substances distinguished in other countries by the terms of *basaltes*, *trapp*, *wacken*, *grünstein*, and *porphyry*;) and, after several trials, he completely succeeded with this also: since, according to the mode of cooling, he obtained either glass, or an intermediate substance, the appearance of which he compares to the liver of an animal;—and, lastly, by cooling the melted mass very gradually, he obtained a substance differing in all respects from glass, and in texture completely resembling the whinstone.

In order more fully to prove that these effects resulted entirely from the mode of cooling, Sir James made some additional experiments, in which he first reduced the whinstone to solid glass, and, after a second fusion, converted this glass into the stony substance resembling the whinstone. This substance, or artificial whinstone obtained from the glass, he distinguishes by the name of *crystallite*.

The author then proceeds to give an account of some trials made with seven varieties of whinstone from different places; the results of which confirm what has been already related. We shall therefore pass on to the second part of the paper, which contains experiments on six varieties of lava from Italy and Iceland.

Before he relates these experiments, Sir James makes some observations on lavas in general; and, speaking of solid lavas, or those which form the interior parts of the currents, he says:

When these solid lavas are compared with our whinstones, the resemblance between the two classes is not only striking at first sight, but bears the closest examination. They both consist of a stony basis, which frequently contains detached crystals of various substances, such as white *felspar* and black *hornblend*. The analogy between the two classes seems to hold through all their varieties; and I am confident that there is not a lava of Mount *Ætna* to which a counterpart may not be produced from the whinstones of Scotland.

This resemblance in external character is accompanied with an agreement no less complete in chemical properties.'—

M. Dolomieu and Mr. Kirwan, though they differ widely in many respects, agree in believing, that lavas have never been acted upon by a heat of sufficient intensity to produce complete fusion; and endeavour each, by an hypothesis peculiar to himself, to account for their fluidity.'

By quotations from the works of these two gentlemen, it appears that M. Dolomieu believes that the heat of volcanos has but little intensity; and that the fluidity of lavas is produced by a species of dissolution, or by a simple dilation, which permits the parts to glide over each other; or perhaps by the help of some other matter, which serves as the vehicle of fluidity.—Mr. Kirwan, however, adopts only the latter opinion; adding that the matter, which promotes fluidity, plainly appears to be no other than sulphur and bitumen.

Sir James Hall then observes that these suppositions are both founded on the belief that, in our fires, nothing but glass can be produced from a lava after complete fusion; which, if taken for granted, would certainly render very difficult the explanation of the phænomena of actual eruptions by means of the known agents of nature: but, continues the ingenious Baronet, in the subsequent paragraph,

'The experiments already described supersede the necessity of supposing any thing different from the common course of nature; for they afford analogically an easy solution of the difficulty, by shewing that glass is not the only result of fusion, and that whin, a substance like lava, when cooled slowly after fusion, resumes its stony character.'

In order, however, to ascertain the truth of these conclusions, some experiments on lavas were performed: of which we regret that the particulars cannot here be stated; and that we can only observe, in general, that the results perfectly correspond with those which were afforded by the whinstones. The crystallites obtained from whinstone and lava were frequently less fusible than the original substances; and Sir James observes that, when the melted glasses were crystallized in the temperature of 22 of Wedgwood's pyrometer, they crystallized rapidly, and formed what he calls the liver crystallite infusible under 30: but, when crystallized in a higher temperature, they formed a stony substance like a common lava, or whin, fusible only at 35.

The paper concludes with some remarks on the formation of lavas, and of the substances contained in them; after which, we find a table shewing the relative fusibilities of the original substances employed in the above experiments, as well as those of the different glasses and crystallites obtained from them.

We

We need not here enter into any discussion of Dr. Hutton's Theory: but, independently of this or of any other system, it must be evident that Sir James Hall's experiments are truly valuable and important; since they reveal the hitherto occult cause which produces the stony character of lavas, and present to chemists and naturalists a series of new and curious facts relative to the fusion of earthy substances.

A Chemical Analysis of three Species of Whinstone, and two of Lava. By Robert Kennedy, M. D. F.R.S. & F. A.S. Edinburgh.—The whinstones and lavas examined by Dr. Kennedy were part of those which Sir James Hall, assisted by Dr. K., subjected to the experiments that have been just noticed. In the beginning of this paper, we find the author's general mode of analysis exemplified by a description of the analysis of the basalt of Staffa: but, as this does not appear to be essentially different from that which is usually adopted by modern chemists, we shall omit the particulars.—By his analysis, Dr. K. obtained from 100 parts of the basalt of Staffa,

Silex	-	-	48
Argill	-	-	16
Oxide of iron	-	-	16
Lime	-	-	9
Moisture and other volatile matter			5

94

The loss, therefore, amounted to 6 per cent.; and Dr. Kennedy, having remarked nearly the same loss in other similar analyses which he had formerly made, began to suspect that some saline substance existed in these stones; which suspicion was corroborated by their considerable fusibility. By some subsequent experiments, he ascertained the presence of soda; and he describes the method employed to obtain the soda, and to determine its quantity.

Dr. K. first tried the effects of sulphuric acid in a boiling heat: but, although this experiment was continued in one instance even so long as 18 hours, he found that not more than two or three parts of soda could thus be separated.

It appeared necessary, therefore, (he observes) to try other methods; and after some consideration it occurred to me, that if the powdered whins could be exposed, while red hot, to the vapours of the sulphuric acid, also in a red hot state, its power in separating the whole of the alkali from the earthy bases of these substances, would probably be greatly increased in so high a temperature. I succeeded in applying a red heat both to the powdered stone, and to the acid at the same time, by the following means;

* Some of the basalt of Staffa being mixed, in very fine powder, with three parts of sulphuric acid, the mixture was evaporated slowly to dryness in a sand bath. The dry mass was then heated gradually to redness, and kept in the fire for one hour. It was next powdered, and boiled in water; and the water, being filtered, was treated with carbonate of ammonia, which threw down a small quantity of a brownish precipitate. After separating this precipitate by filtration, the liquor was evaporated to dryness, and the sulphate of soda, which was left, was purified in the manner already described, and heated red hot. It amounted to 9 parts for every 100 parts of the basalt employed.

† In this experiment, the sulphuric acid was first united to a part of the lime, of the argil, and of the iron, contained in the stone; and afterwards, when the mass was exposed to a red heat, the acid was driven off partly or wholly from these, and applied in red hot vapours to every part of the powder; by which its action appears to have been rendered much more powerful, as 9 per cent. of sulphate of soda was produced: and by the same process, so simple and easy to execute, I got from the rest of the substances, to be mentioned in this paper, from 8 to 11 per cent. of sulphate of soda, although, when they were merely boiled in the acid, the quantity of this salt never exceeded 5 or 6 per cent.

‡ As the proportion of acid and alkali in neutral salts has not been hitherto determined with certainty, the quantity of soda in these whins cannot be exactly known. But it is probable that 9 parts of sulphate of soda, dried by a red heat, do not contain less than $3\frac{1}{2}$ or 4 parts of pure alkali; which must therefore be considered as the weight in 100 parts of the basalt of Staffa: and as $3\frac{1}{2}$ or 4 parts of soda, when added to the sum of the earths and iron, amount nearly to the 100 parts of the stone employed in the analysis, this calculation may be reckoned very near the truth. For the same reasons I think it likely, that the greater part, or the whole of the soda, was obtained from the basalt by the process which has been last described.

Dr. K. remarked, in the course of his experiments, some traces of muriatic acid; the quantity of which he therefore ascertained in the usual way, by means of nitrate of silver.

According to the results of the different processes, it appears that the three species of whin and the two lavas are thus composed:

1. Basalt of Staffa.

Silex,	48
Argil,	16
Oxide of iron,	16
Lime,	9
Moisture, and other volatile matter,	5
Soda, about	4
Muriatic acid, about	1

2. *Whin of Salisbury Rock.*

Silex,	-	-	46
Argil,	-	-	19
Oxide of iron,	-	-	17
Lime,	-	-	8
Moisture, and other volatile matter,	-	-	4
Soda, about	-	-	3.5
Muriatic acid, about	-	-	1
			<hr/>
			98.5

3. *Whin of the Calton Hill, near Edinburgh.*

Silex,	-	-	50
Argil,	-	-	18.50
Oxide of iron,	-	-	16.75
Carbonate of lime,	-	-	3
Moisture, and other volatile matter,	-	-	5
Soda, about	-	-	4
Muriatic acid, about	-	-	1
			<hr/>
			98.25

4. *Lava of Catania. Ætna.*

Silex,	-	-	51
Argil,	-	-	19
Oxide of iron,	-	-	14.50
Lime,	-	-	9.50
Soda, about	-	-	4
Muriatic acid, about	-	-	1
			<hr/>
			99

5. *Lava Sta Venere, Piedimonte. Ætna.*

Silex,	-	-	50.75
Argil,	-	-	17.50
Oxide of iron,	-	-	14.25
Lime,	-	-	10
Soda, about	-	-	4
Muriatic acid, about	-	-	1
			<hr/>
			97.50

After these statements, Dr. K. observes that

‘The results of these analyses shew that whins and a certain class of lavas, taken from remote quarters of the globe consist of the same component elements united in each nearly in the same proportion. The only circumstance, in which they materially differ, is the loss of some volatile matter in the fire, which is peculiar to the whins alone.’

‘We need not now be surprised at the facts mentioned by Dolomieu, and others, of soda being found about volcanos, or upon the surface of lavas; as it has been thus shewn to exist in these substances in combination with their earthy bases.’

At

At the end of this paper, we find an account of some experiments which this ingenious and accurate chemist has performed with various sandstones or grits; and which prove that these also contain some soda, mixed with a portion of muriate of soda or common salt. The foregoing analyses require no comment: but, in testimony to the accuracy of Dr. K., we must observe that his analysis of basalt (as to the proportion and quality of the alkali,) has been fully confirmed by some late experiments of M. Klaproth.

PHILOSOPHY and MATHEMATICS.

Investigation of certain Theorems relating to the Figure of the Earth. By John Playfair, F.R.S. Edin. and Professor of Mathematics in the University of Edinburgh.—From a natural disposition in the mind of man to assign to objects the form which it most easily conceives, the figure of the earth was supposed by ancient astronomers to be spherical: but this conjecture was refuted by the observations made by some astronomers, who were deputed by the Parisian Academy of Sciences to measure degrees of the meridian at the pole and at the equator. The increase of the degrees of the meridian, from the equator to the pole, being incontestably proved, the idea of the spherical form of the earth was abandoned; and since the ellipse is, after the circle, the most simple of the re-entering curves, the earth was imagined to be a spheroid formed by the revolution of an ellipse round its smaller axis. Nature, however, does not accommodate herself to our conceptions: “The subtlety of nature (says Lord Bacon) surpasses the subtlety of man many degrees.” Subsequent observations shew that the earth is *not* an ellipsoid; and there is even reason for supposing that it is not a solid of revolution, and that the two hemispheres are not the same on each side of the equator.

This subject of the earth's figure is considered in the present paper by Mr. Playfair; who appears rather unwilling to abandon the simple hypothesis of the ellipsoidal form. After some introductory remarks on the local circumstances which may induce error in the measurement of arcs of the meridian, he gives the analysis of what he calls new rules for the measurement of large arcs. The first formula for the length of an arc of the meridian, extending from the equator to any latitude ϕ , is

$$a \phi - \frac{c}{2} \left(\phi + \frac{3}{2} \sin. 2 \phi \right)$$

This formula is obtained by first deducing the value of the radius of curvature: but it also easily follows from the form given by M. Le Gendre, (in his “*Memoire sur les Intégrations*”
par

par arcs d'Ellipse;") for the length of an elliptic arc of a very small excentricity.

The second form is deduced by measuring the arcs perpendicular to the horizon.

After having applied his formulæ to the computation of the ellipticity, Mr. Playfair says:

“The above compression, if the remarks already made be well founded, is much too great, being more than double of what was obtained from comparing the whole arch of the meridian measured in France with the whole of that measured in Peru. At the same time it is right to observe, that all the other comparisons of the degrees of the meridian, with those of the curve perpendicular to it, made from the observations in the south of England, agree nearly in giving the same oblateness to the terrestrial spheroid. For this circumstance, it is certainly not easy to account; the unparalleled accuracy with which the whole of the measurement has been conducted, makes it in the highest degree improbable that it arises from any error; and even if errors were to be admitted, it is not likely that they should all fall on the same side. The authors of the *Trigonometrical Survey* seem willing, therefore, to give up the elliptic figure of the earth; but before we abandon that very natural and simple hypothesis, it may perhaps be worth while to attend to the following considerations.

“In the part of England, where the measures we are now treating of have been taken, the strata are of chalk, and though of great extent, are bordered, on all the sides that we have access to examine, by strata much denser and more compact. Toward the west the chalk is succeeded by limestone, and that limestone by the primitive schistus and granite of the west of Devonshire and of Cornwall. On the east we may suppose that something of the same kind takes place, though the sea prevents us from observing it, as the chalky and argillaceous beds extend in this direction to the coast, and probably to some distance beyond it. Now the meridian of Greenwich may be considered as dividing the tract of country, occupied by these lighter strata, into two parts, in such a manner, that the plummet being carried to a distance from it, either east or west, approaches to the denser strata, and is of course attracted by them, so that the zenith is forced back, as it were, to the meridian of Greenwich, and does not recede from it, in the heavens, at so great a rate as the plummet itself does, on the earth. Hence the longitudes from this meridian, estimated by the arches in the heavens, intercepted between the zenith and the said meridian, will appear less than they ought to do; and too much space on the surface of the earth will of consequence be assigned as the measure of a degree. In this way D' is made too great; and we may suppose the circumstances such that D , on going north or south, is not enlarged in the same proportion; hence $\frac{D'-D}{D}$ will be augmented, and of course $\frac{c}{a}$ will be represented as

too great. This explanation may perhaps appear very hypothetical, and it is certainly proposed merely as a hypothesis. It is a hypothe-

' Where seas of glass with gay reflexions smile,
 Round the green coasts of Java's palmy isle;
 A spacious plain extends its upland scene;
 Rocks rise on rocks, and fountains gush between;
 Soft zephyrs blow, eternal summers reign,
 And showers prolific bless the soil in vain!
 No spicy nutmegs scent the vernal gales,
 Nor towering plaintain shades the mid-day vales;
 No grassy mantle hides the sable hills,
 No flowery chaplet crowns the trickling rills;
 Nor tufted moss, nor leathery lichen creeps,
 In russet tap'stry, o'er the crumbling steep's;
 No step retreating on the sand impress'd,
 Invites the visit of a second guest;
 No reflux fin th' unpeopled stream divides,
 No revolant pinion cleaves the airy tides;
 Nor handed moles, nor beaked worms return,
 That mining pass th' irremeable bourn.
 Fierce, in dread silence, on the blasted heath,
 Fell Upas sits, the Hydra tree of death.'

The vast island of Borneo is divided from the northern coast of Java by a sound, which is between two and three hundred leagues in breadth, and its circumference is estimated at two thousand miles; so that it may justly be considered as the largest island in the world. It is of a pyriform shape; its shores are rude, with projecting promontories; and it is separated by the equator into two unequal portions. The far greater part of Borneo next to the sea, especially the northern, consists of swamps, covered with forests of trees of numberless species and great sizes, which penetrate for scores of miles towards the centre of the island. These unstable muddy flats are divided by rivers, which branch into multitudes of canals, and are the only roads into the interior parts. Lofty mountains are said to rise in the middle of the island; many are volcanic, and often occasion tremendous earthquakes. 'The whole coasts,' says the author, 'are in the hands of Malaysans; Moors, Macassars, and even Japanese, who have perhaps for centuries driven the antient inhabitants into the interior parts.' The first three nations here enumerated are one and the same, distinguished by a general (or religious) and a particular designation.—'The Aborigines are of a black complexion, a middle stature, with long and black hair, and generally better featured than the Guinea negroes, feeble in their bodies, and very indolent and inactive.'

In the list of quadrupeds, we find the Ourang Outang; of which 'there appears,' says Mr. Pennant, 'to be two species, one that never exceeds two feet and an half in height. Mr. Beck-

mann speaks of some species growing to the height of six feet; he bought a young one, which was stronger than any man in his ship, but it died before it was a year old. The Ourang Outang is found also in Java; Hamilton saw one in that island which was four feet high, and mentions a smaller species called Aumpals. He confirms the account of the greater species; of its lighting a fire, and blowing it with its mouth; and of its broiling a fish to eat with its boiled rice, imitative of the customs of the human race.'

The author observes that, 'at a small distance to the north, about lat. 7°, begins the vast groupe of the Philippine Islands; these are much more probably the Maniolæ of Ptolemy, than the lesser Andaman, which D'Anville supposes them to have been. These islands were known to the antients by the Indian name, which is still retained in Manila. Ptolemy speaks of them as ten islands immediately beyond the tres insulæ Satyrorum, or Borneo.' Here, then, terminates the supposed knowledge of the antient geographer: but it is manifest that the materials, with which he was furnished, have been so totally defective in those distant regions, as to preclude the possibility of identifying his stations. Mr. Pennant has adopted the opinions contained in a paper by Mr. Caverhill in the Philosophical Transactions; and he considers Sumatra as Sabadivæ; Borneo, and the neighbouring isles, as the tres insulæ Satyrorum; and the ten Maniolæ, as the Philippine isles. On the map, Ptolemy has placed the Sabadivæ nearly in the situation of Sumatra, but he makes them three distinct islands; the three islands of the Satyrs are placed in the gulph of Siam, north of Cattigara, and seem to correspond better with the small islands off the east of Cambodia, than with Borneo; particularly as the adjacent promontory (*Satyrorum promontorium*) has obviously received its name from the same cause. The Maniolæ, on the other hand, form a groupe southwest of the *Insula Bona Fortuna*, or Great Andaman; a situation widely remote from the Manillas, and which appears to justify M. D'Anville's supposition. It must, at the same time, be confessed that this position does not accord with the description given of them by the same geographer; who, after having mentioned the tres insulæ Satyrorum in the gulph of Siam, adds, "*Feruntur et hic aliæ insulæ continuæ esse numero decem, Maniola appellatæ.*" Yet this expression does not necessarily imply that they lay beyond the islands of the Satyrs, as Mr. Pennant states. The only one of these islands, of which the situation may be considered as completely identified, has not been introduced by the present author, viz. the island of Java. "*Jabadii*," says Ptolemy, "*hoc est, hordei insula, feracissima*"

feracissima enim hæc insula dicitur, et præterea auri multum efficere." This enigma remained inexplicable till Sir William Jones furnished the solution, by mentioning that Jaba, or Java, signifies barley in Sanscrit, and hence the *bordei insula* of the ancient geographer. Most of the names of these isles, both ancient and modern, are derived from the Sanscrit; *Sabadiva*, the company islands, three being arranged opposite to each other; *Manila*, the isles of gems; *Cumbava*, the isles shaped like a water jar; and *Mallica*, (the Moluccas), isles abounding with the nyctanthes, or Indian jasmine; for which see Rumphius, in his *Flora* of Amboyna.

'The celebrated bread-fruit, the *soccus lanosus, granosus, et sylvestris*, of Rumphius, is frequent in these islands. It begins to appear in the eastern parts of Sumatra, where it is named by the Malays, *Soc-cum Capas*; again in Prince's Island, about Bantam, and in Malacca; and, finally, in all the islands to the east, and from thence to Otaheite, and many others in the South Sea.

'Celebes is prodigiously mountainous and lofty; the mountains increase in height towards the central parts, and are generally richly clothed with wood. In Macassar, as well as in Miudanus, are some active volcanoes. Mr. Loten informed me that none of the Indian islands had such grand and beautiful scenery. It abounds with rivers, which spring high in the mountains, and precipitate down vast rocks, among a sylvan scene of lofty and singular trees. The lakes and more still parts of the rivers give security to numberless water fowls of the larger and more clumsy kinds, which retire there by fear of the crocodiles, which haunt the lower and marshy parts. These are not deserted by the lesser palmated birds, such as ducks and teal, which, being quick-sighted and nimble, easily evade the approach of the enemy.'

Near to Java, we find the isles of Madura and Bali, names celebrated in the Puranas. 'When the Dutch touched here, (says Mr. P.) in their first voyage of the year 1595, they found them governed by a king, who appeared in great state, was attended by his guards, and drawn in a chariot by milk white oxen. The great men were carried in their bamboo palanquins, and lived in the highest luxury. The religion was then paganism; and the women, as in India, devoted themselves to the funeral pile on the decease of their husbands.'

Stretching eastward from Java, a chain of isles extends almost to the vicinity of New Holland. The latter, Mr. Pennant contends, should be named a continent, on account of its large dimensions. 'America itself is but an insulated continent, superior as it may be to that of New Holland.'—Here the author recapitulates the various navigators by whom this island was visited, from the beginning of the seventeenth century, to the formation of the settlement at Botany Bay in

ous Commodore Peter Nuyts sailed
h east coast) ' and made many at-
ways repulsed. Is not this a proof
of New Holland possess a superior
valour in the inhabitants, to all the
this vast country.'—The selection
settlement of our convicts, is far
in of Mr. P. who thinks that the
he isles of New Britain would have
ration.

ys the author,) that the expence of trans-
anted to three hundred pounds a man, in-
their cloathing and support for some small
s in hopes that two pamphlets published
der authority of government, would have
rt, especially as one of them pretended
ences; but the detail is so very imper-
satisfy either my own or the reader's
ence we have been at in sending provi-
Dape of Good Hope, and from China,
our colony has been at the point of

e *Faunula* of New Holland, as the
ation relative to the recent circum-
.—The genus of Opossum, it is said,
in any other found in this country,
singular and wonderful kinds. We
, including the gigantic and spotted
roo rat. The flying opossum has
leg to leg like a flying squirrel, and
Many species of parrots are found in
s are very numerous. ' The superb
necks of the richest coerulean colour;
, band of the same surrounds the
belly white, all the rest of the
ong; a most beautiful bird: from
other parts of New Holland.' This
genus.—' The black swan is in size
bill is of a rich scarlet; near the tip
whole plumage is of the most in-
imaries and secondaries, which are
feet dusky; it is found in Hawke-
h waters near Broken Bay, and has
he white kind.'—The cabbage-tree,
be cut through with a single stroke
of any use in building. The very
largest

largest trees, lofty and spacious as they appear, are so brittle that, when sawn, they fall in pieces.

From New Holland, the author proceeds north to the Arrau Isles. 'We are now (he says) arrived within reach of the perfumed air of the Molucca, or famous spice islands, a land of romance, where nature assumes a new shape in picturesque scenery, and in the beautiful and singular form of numbers of the animal and vegetable creation, whether inhabitants of land or water.' The long celebrated Manucodiatæ, or birds of paradise, first begin to appear in these islands; and Mr. P. discusses the question, whether these animals were known to the ancients. Few birds are more circumscribed in their limits than these; which are confined within the Papira Islands and that of New Guinea, and are found only from lat. 8° south, to lat. 3° north of the equator, and between longitude 127 and 140.

'They are supposed to breed in New Guinea, and to reside there during the wet monsoon, but retire to the Arrau Isles, about a hundred and forty miles to the east, during the dry or western monsoons. In the east monsoon they moult their long feathers, but recover them in the west. They always migrate in flocks of thirty or forty, and have a leader, which the inhabitants of Arrau call the king: he is said to be black, to have red spots, and to fly far above the flock, which never desert him, but settle where he settles. They constantly avoid flying with the wind, which ruffles and blows their loose plumage over their heads, and often forces them down to the ground, from which they are unable to rise without some advantage: hard showers of rain are equally destructive to them. When they are surprized with a strong gale, they instantly soar to a higher region, beyond the reach of the tempest; there they float at ease in the serene sky, on their light flowing feathers, or pursue their journey in security; during their flight, they cry like starlings, but in the distress of a storm blowing in their rear, they express it by a note resembling the croaking of ravens. When they alight, it is in the highest trees, the king taking the lead; they prefer the *varinga parvifolia*, on the berries of which these birds and various sorts of parrots feed; some say that they feed on nutmegs, on butterflies, and even small birds; the strength of their claws favours that opinion; yet that circumstance may be requisite to birds, which are always to live perched.'

In lat. 4° 30' south, lie the Spice Islands, which have received their denomination from Banda, the most considerable. As they are now in the possession of the British, we may hope for a more particular account of them than has hitherto appeared. They seem to have been thrown up by the sea, by the effects of subterraneous fire. Lofty mountains, says the Abbé Raynal, the summits of which are lost in the clouds, enormous rocks

heaped one upon another, horrid and deep caverns, torrents which precipitate themselves with extreme violence, volcanoes perpetually announcing impending destruction; such are the phenomena that give rise to this idea, or assist in confirming it. In Gunongapi, is a volcano which constantly emits smoke, sometimes accompanied by a crackling noise; and the surface of the island is covered with sulphur and chalk. The growth of nutmegs has been confined to three of these islands by the Dutch, who extirpated the trees on all the rest, in order to secure the monopoly.—From a statement published since these isles came into our possession, and long subsequent to Mr. Pennant's sketch, it appears that the islands of Banda contain 5763 inhabitants, of which 119 are Europeans; and the south-west islands contain 38,266, of whom 2322 were converts to the Christian faith. 'Amboyna is about 30 leagues to the north-west of the Banda Isles. This is in respect to cloves, what those are in respect to nutmegs. The Dutch have made it the great and sole plantation of that valuable spice. They destroy with the same zeal all that they can find on the islands within their reach.'—As a more particular and authentic account of these islands has recently been given, by a gentleman employed in the expedition which subjected them to the British crown; and since the history of the aromatic trees which afford the nutmeg and the clove can boast of little novelty; we will leave the Moluccas, and proceed easterly through the islands inhabited by the Papus, and terminated by New Guinea, where Mr. Pennant closes his researches.

The large island of Gilolo is not classed among the Moluccas, though contiguous to them; like them, it abounds in the sago and bread-fruit trees: the first, indeed, is common to all the islands east of Sumatra. The Papua islands stretch hence to New Guinea;—they were visited in 1769 by M. Sonnerat and M. Le Poivre, who were sent from the Isle of France to procure nutmeg plants. These islands, with New Britain and New Ireland, are inhabited by the same warlike race, named Papus. 'The aspect of these people is frightful and hideous; the men are stout in body, their skin of a shining black, rough, and often disfigured with marks like those occasioned by the leprosy; their eyes are very large, their noses flat, mouth from ear to ear, their lips amazingly thick, especially the upper lip; their hair woolly, either a shining black or fiery red: M. Sonnerat imagines the last to be owing to some powder.' The existence of a race of negroes in these islands so remote from any people of the same configuration, and so incapable of navigating from Africa to occupy these sequestered shores, is a circumstance which cannot

cannot but suggest some singular inferences. Endeavour straights, which separate New Guinea from New Holland, are 10 leagues in length, and about 5 in breadth. Mr. Pennant makes the circuit of the island; 'and thus,' said that venerable and now deceased writer, 'concludes the last great labour of my life.'

This work will be found to contain, perspicuously arranged, much of the information which Europe possessed respecting India beyond the Ganges, before recent and authentic writers elucidated those countries by more ample details. The *Flora Indica*, annexed to the volumes, is copious; and as an abridgement of the labours of the Dutch botanists, it probably is not without its utility. Our numerous extracts supersede the necessity of farther observations.

ART. XII. *The Christian Preacher*; or, Discourses on Preaching, by several eminent Divines, English and Foreign, revised and abridged; with an Appendix on the Choice of Books. By Edward Williams, D.D. 12mo. pp. 496. 4s. 6d. Boards. Wills, &c. 1800.

THIS volume would afford materials for more remarks than our confined pages can admit. As a compilation, it will not be expected to display much ability or learning in the editor; yet in its progress it seems naturally to lead to observations and inquiries which might attract attention, but to which we can allot but a very brief notice. Of the seven discourses contained in it, the *first* was written by Bishop Wilkins, under that well-known title, "*The Gift of Preaching*:" but, though it was valuable when it first appeared, it is now almost obsolete. It wears the marks of an author slowly emerging from the clouds and confusion of scholastic terms and divisions, though a careful reader may extract from it some good sense and useful instruction: but it is indeed perplexing, and very tedious. Something of a like kind is to be said concerning the last discourse "*On the Composition of a Sermon*," by the Rev. John Claude; translated and published, several years ago, by the Rev. R. Robinson, of Cambridge; at which time it was acknowledged, with truth, that the performance derived its principal value from the original notes which Mr. R. subjoined; since the work itself is systematical, mystical, and tiresome*. These two articles, with the Appendix, form a principal part of the volume before us.

Of the second and third discourses, which were composed by the Rev. John Jennings, formerly tutor in a dissenting

* See M. Rev. for March 1779, vol. lxi. p. 100.

academy at Kibworth, Leicestershire, the titles are *Preaching Christ*, and *Particular and Experimental Preaching*. They were made public in the year 1723, and received at that time a warm recommendation from the pious and learned Dr. Isaac Watts: indeed, each of them contains truths which merit attentive notice. There can be no doubt that a Christian preacher should endeavour to enter into the power and spirit of that revelation which he has received for his guide, and should enforce each branch of religion and morality by those sanctions and motives with which he is there furnished; yet it certainly may be questioned whether the just and full idea of preaching Christ, or the doctrine of Christ, is here exhibited. The sermons, however, obtained so much reputation, that they were translated into the German language by Herman Augustus Franck, about that time professor of divinity at Halle in Saxony; and a letter written by him on this occasion, to Dr. Watts, forms the fourth essay in this collection, bearing for its title, "*Useful Preaching*;"—it is much in the strain of the foregoing.

Dr. Watts himself appears next in a long extract from his works, here distinguished as *rules of conduct*. After having been conversing with Wilkins and Claude, it is a pleasant relief to read this more easy and well-formed composition; through which a vein of good sense and piety prevails; and which, together with a remaining sermon by Dr. Doddridge, called the *Neglect of Souls*, seems to constitute the best part of the present compilation. Few persons have accomplished more for the assistance and improvement of youth, than these two eminent men; and none were more liberal in exhorting them to guard against prejudice or rashness.

The Appendix is intended as a 'direction to a proper choice of books for the preacher's library.'—It sets out with rather pompous and sounding diction; Polyglotts, Complutensian Bibles, Biblia Luteliana Heptaglotta, &c. &c. are not works which the generality of young divines can much expect to obtain; nor is it necessary that they should, since they may by other means have occasional access to them, and from different writers may gain faithful and useful instruction concerning them.—In the progress of this catalogue, which at times reminded us of Doddridge's lectures on books, some character is commonly added; of which we shall give a few specimens. The distribution observed seems, on the whole, to be judicious, commencing with such as are called *preparatory*; among which we see the *General Index* to the *Monthly Review*, and other catalogues of books. In the account of writings relative to the scriptures, we sometimes find a remark which, considering

considering the editor's avowed bias of a party kind, may be deemed fair and liberal. Thus it is said of Gill's Exposition; 'though on the whole a valuable work, it is often prolix and tautological, and sometimes injudicious;'—and, again, of his Body of Divinity it is observed: 'Gill was a learned and pious man, but his notions of moral obligation were not correct, which disposed him too often to cut the knot of difficulty, instead of solving it, and to deal in round assertions, with slender arguments.' Keach's Key to Scripture Metaphor is mentioned as a work 'which a common-place declaimer will not fail to abuse;'—and this we believe, though we are not intimately acquainted with the book, to be a just remark;—as possibly it may also be that 'a judicious preacher may consult it with profit,' though we think it probable that such an one will incline to reject a great part of it. Indeed the present collector, though sufficiently cautious on some topics, is not extremely anxious to guard the young reader against mysticism; otherwise, as an instance in point, when characterizing Parkhurst's Hebrew Lexicon, he would have reminded him that the Hutchinsonian remarks pervading the volume, however specious, are not to be implicitly adopted. 'Whitby's Commentary on the New Testament,' it is observed, 'may serve to shew what a systematic and bigotted professed Arminian can say on that side of the controverted questions.' Macknight's Commentary receives a cool commendation: but, it is added, 'his sentiments on some controverted points are to be read with caution;'—no unusual insinuation with this writer, when opinions do not exactly tally with his own! He assents, however, to Bishop Watson's remark relative to the earlier times of Christianity; that, "as interpreters of scripture, the fathers are much inferior to the moderns, but they may be useful examples to us in piety and zeal:" but, though he occasionally appeals to this prelate as an authority, he tells us that, 'his collection of theological tracts contains a large catalogue of books in divinity, without any classification of subjects, and including but a very small proportion of orthodox and practical writers.' 'Were I disposed (he says in another place,) to recommend learned ingenuity and critical conjecture, often at the expence of truth, and probably unsanctioned by the discipline of personal deep experience, the commentaries of Mr. (John) Taylor and Mr. Locke might be mentioned.'—*This*, we may with confidence say, is not the language of Dr. Doddridge, some of whose manuscript lectures are here professedly employed. He had a more ingenuous and candid mind. He spoke handsomely concerning writers of this class, and recommended their criticisms to attention.—Notwithstanding these and similar objections, however,

however, we occasionally meet with just and agreeable reflections in this part of the volume. Among the characters given, none stand higher than, and few (if any) so high as, Mr. Whitfield: amid the encomiums on whom, it is said, 'Perhaps no man ever possessed in a higher degree *abilities* for exemplifying the rules of Longinus on the sublime; and considering the nature of his subjects, and the mixed assemblies he addressed, perhaps no one *actually* exemplified them to greater effect.'

We cannot but remark, from the perusal of this volume, that the editor would probably be indignant if he were brought under the necessity of conforming to the dogmata of an establishment, yet that he himself appears to *establish* a mode of faith to which all *ought* to submit. On this narrow scale, books and libraries seem to be of little significance. At the close of his preface, he expresses an apprehension that the work may be condemned as *Calvinistically partial*: but, with some air of triumph, he adds, 'my apology is, that it comports with the views of such men as Wilkins and Watts, Jennings and Doddridge, Franck and Claude, a partiality which suited the taste of men equally illustrious for learning and goodness, the greatest ornaments of the Christian pulpit, and the richest benefactors of mankind.'—Here it is natural to observe that inquiries after truth forbid all partialities, and that we should never forget the poet's well-known maxim,

"*Nullius addictus jurare in verba magistri.*"

Modesty and humility, indeed, should attend all our researches: but human names, however venerable, should not be allowed to overbear our judgment or determine our conclusions.—We cannot dismiss the article without adding that, excepting his Exposition, Dr. Doddridge's works obtain no high commendation from the editor of this volume.

ART. XIII. *The Rival Mothers, or Calumny.* Translated from the French of Madame de Genlis. 4 Vols. 12mo. 18s. sewed. Longman and Co. 1801.

THE literary reputation of Madame de Genlis is so well established, that the public are readily disposed to anticipate pleasure from every new production of her cultivated mind; and we have satisfaction in acknowledging, after having perused the volumes before us, that disappointment has not superseded expectation. We regret that this ingenious lady should have had reason for complaining of the insidious enemy *Calumny*: but, if she has been enabled to support its injustice with the fortitude inspired by conscious innocence, (such as she describes

scribes to be the recompense of the injured Pauline,) she will not (as a moralist) regret the experience, whatever painful sensations it may have occasioned.

The *Rival Mothers* are two ladies who enter the lists of competition on the subject of maternal affection. If they do not stand on fair and equal ground respecting pretension, since they cannot both be the mother, they meet at least on the point of conduct. Each makes an important sacrifice to the little idol Léocadie:—the sacrifice of *reputation* is offered by one to the preservation of the infant; and that of parental intercourse and endearment is endured by the other, for the *maintenance of her reputation*. Yet, as the latter incessantly demonstrates, by the frequent testimonials of unremitting superintendence, that her heart never relaxes on the affectionate interests of maternal love and duty, Solomon himself might have been puzzled to decide which was the real parent; while the extravagant personal fondness of Pauline might have contributed to impose on even his sagacity.

The narrative of the novel is pleasing and interesting. The characters, indeed, are delineated *à la française*; and exceptions consequently arise against a few occasional tints of unnatural colouring; which, by overstepping the modesty of nature, gives too much the semblance of romance to the work, and is not adapted to that species of writing in which, the author tells us, the story is meant as a vehicle to convey the principles of sound and pure morality. We also differ from Madame de Genlis on the subject of reputation. Her heroine, Pauline, stands chargeable with gross inconsistencies on this head. She is represented as tremblingly alive to general sensibility on the subject of virtue, yet she is apparently indifferent to its appropriate estimation in the opinion of others; and she throws away her good name, “as ’twere a careless trifle.”—She is attacked by the grossest calumny;—accused of adultery, hypocrisy, and falsehood;—yet she writes to her friend—‘*Do not bewail the loss of my reputation; it is of all the illusions of life, that which I regret the least and despise the most.*’ Of what value, then, is the jewel reputation; if such apathy, is to be attached to it?—By this indifference to character, Madame de Genlis loses sight of her professedly supreme object, the encouragement and improvement of morals; since the desire of being esteemed by the world, if it ought not to be the *primum mobile* of our actions, must at least be admitted as a stimulating principle, without which the current of virtue would be liable to stagnate. Though often a charming *human creature*, this lady is but too apt to degenerate into a *French court lady*; one moment, we admire her; the next, we despise the formal painted wooden doll.

doll. We turn with disgust from the allegoric garden, the romantic machinery, and the theatrical personifications; and we would also gladly erase the many unnatural events that crowd her novel: yet let us remember that French and English *Nature* differs, and that the author is acquainted only with the former;—whom we consider as a degenerate goddess.

The style of these letters is sprightly and animated, bidding defiance to the foul fiend *Ennui*.—The translator of a work of this kind finds it almost impossible to transfuse into another language that spirit and vivacity, with that beautiful and elegant *tour de phrase*, which so peculiarly characterize the French writers of eminence; and mere fidelity produces flatness and insipidity. In many passages, however, the present translator is successful in catching a ray of the author's illuminated pencil; and the version of the ingenious lines with the *double sens*, found in the oratory, is extremely well executed.

ART. XIV. *Three Lectures upon Animal Life*, delivered in the University of Pennsylvania. By Benjamin Rush, M. D. &c. 8vo. pp. 84. 2s. 6d. sewed. Printed at Philadelphia. Imported by Mawman, London.

IN these Lectures, Dr. Rush has explained the phenomena of life, on the principles of Dr. John Brown: but he claims the discovery of those principles for Dr. Cullen; and the honour of an inviolate adherence to them, before the rise of the Brunonian system, for himself. To the uniformity of Dr. Rush's opinions, we certainly do not mean to object: but the extent of Brown's obligations to Dr. Cullen, for the origin of his hypothesis, would form a curious subject of inquiry, if theoretical systems held the same rank among the Faculty now, which they obtained in the middle of the last century. Dr. Brown's theory of the action of opium was undoubtedly a mere copy from Cullen's Lectures on the *Materia Medica*, and his excitability probably owed its origin to the Cullenian doctrine of excitement. There is, however, one striking difference between them. Dr. Cullen always inculcated on his pupils, the opinion of an immortal soul; while Dr. Brown's theory of the forced state of animal life is a system of undisguised materialism. Here the worthy American Professor certainly dissents from Brown, and is necessitated to accommodate his philosophical creed as well as he can to his religious belief:—but, if the Brunonian system were proved, the supposition of the connection between soul and body would be not only unnecessary but absurd. It would therefore be in
vain

vain for its advocates to concede, in words, that which they take away in fact.

It is not our present purpose to enter on a discussion of the doctrines inculcated in these lectures; since they have long ago been under our consideration, as they came from the hands of their first propagator. We shall only observe, on the author's defence of a proneness to speculation, that theories are now too short-lived, to afford much encouragement for fresh adventurers. One of the most ingenious speculatists of our day has said that "*to think is to theorize*;" and this *dictum* has been often quoted in support of bad reasoning. As well might it be said that *to walk is to dance*; and that physicians ought therefore "*to go to church in a minuet step, and come home in a coranto*."

The doctrines delivered by Dr. Rush, in these Lectures, have not obtained such a preponderance in Europe, as to invite them to unquestioned acceptance in America. In some points, they are totally erroneous; and in others they are, at least, very doubtful. They cannot, therefore, constitute a proper basis for medical instruction: since primary truths, in this as in other sciences, should be divested of every thing that is hypothetical. We should feel little esteem for the judgment of a mathematician, if he began his elementary instructions with a dissertation on the possibility of squaring the circle:—yet Dr. Rush appears to have fallen into a similar error: since he has ventured to decide on the most difficult problems in physiology and pathology, before he had initiated his pupils in the knowledge of facts universally admitted. The first duty of a Professor undoubtedly consists in making young men acquainted with useful truths; the next, in laying before them a clear view of the opinions which have prevailed respecting those truths. Dr. Rush has mistaken hypothesis for truth, and has instilled prejudices into his pupils, instead of profitable information.

We have deemed it necessary to place this matter in a strong light, because Dr. Rush has done great injustice to the Faculty, in asserting that all improvements in medicine must hereafter proceed from persons who are not medical practitioners; who are not interested, in short, in *the trade*. This odious insinuation can in no respect attach to the profession in Europe. No public body exists, which is less influenced by corporation-motives than the medical men of this country, in particular. They possess an independent spirit of improvement; they are devoted to no sect; and they are the slaves of no authority. It cannot, therefore, become a question, whether such men are not better qualified to improve the difficult science

science which they cultivate, than general inquirers, who never told the hours by the bed-side of a patient; and who could not anticipate, in theory, difficulties which practice had never offered to their consideration. What may be the state of medical philosophy in America, we do not presume to determine; though we have seen curious specimens of it, in the attestations to Perkins's Tractors:—but we may venture to assert that it will not be materially improved on the plan proposed by Dr. Rush. The intelligent student will still find it necessary to become acquainted with the writings of Hoffman, the Father of Medical Science in modern times; and the judicious practitioner, instead of surrendering his mind to the shackles of system, will only acquire a still greater degree of scepticism in appreciating facts, when a bias to hypothesis is betrayed by respectable authors.

ART. XV. *A Survey of the Strength and Opulence of Great Britain; wherein is shewn the Progress of its Commerce, Agriculture, Population, &c. before and since the Accession of the House of Hanover.* By the Rev. Dr. Clarke, Secretary for the Library, &c. to his Royal Highness the Prince of Wales. With Observations by Dean Tucker and David Hume, Esq. in a Correspondence with Lord Kaimes; now first published. 8vo. pp. 240. 5s. Boards. Cadell jun. and Davies. 1801.

EVERY political writer is desirous of impressing his readers with the idea, that his mind is actuated by no undue bias; though it is a general remark that scarcely an individual takes up his pen on this subject, who is not in some measure influenced either by gratitude or expectation; and that it is nearly impossible to find a person altogether exempted from prejudices and partialities. In saying this, we do not mean to impeach the integrity of all political authors, nor that of Dr. Clarke in particular. While, however, he makes a part of the civil and ecclesiastical system, we appeal to him whether he ought to speak of himself as ‘free from the chains of power.’ “His service,” we admit, “is perfect freedom,” being entirely to his own good liking; and he may truly say that he ‘despises to do obeisance to the Baals of popularity;’ yet he does not occupy that truly independent ground, which might enable him to assert that he alike despises the gods of the court and those of the populace. It must suffice if, ‘without pretending to the spirit of independent truth,’ he has endeavoured to give that view of the strength and opulence of his country which appears to him to be just;—and he unquestionably has taken great pains with his present work.

We should be pleased to think that Dr. C. has not flattered us; yet we fear that this is the case; and though we have little

little relish for croaking politics, calculated to oppress the public mind with despair, we cannot approve of any attempts to lead John Bull into a *fool's paradise*. Admitting that the continuation of the contest with France were necessary, and that our commerce has experienced a vast accession; yet, while the Bank deems it prudent to withhold the payment of its notes in cash, while taxes accumulate, while the necessities of life are at enormous prices, and (which is worst of all,) while the numbers of the poor and consequently the poor-rates are increasing in almost every parish in the kingdom, it is an outrage on common sense to talk of our *unexampled prosperity and happiness* *. Our vast exertions have required an increase of taxation, but ought our National Debt to be reckoned in the estimate of our wealth and resources? Might not a gentleman, in taking an account of his property, as well enumerate the mortgages on his estates as so many additions to his riches? The real opulence of a country consists in its population, its productiveness, and the industry of its inhabitants; and its prosperity is manifested in the general diffusion of the necessities and comforts of life. Extended taxation, aided by paper circulation, will enable the calculator to make a most splendid exhibition of growing riches: but a nation is not, in fact, four times richer than it was, because the quarter of wheat, which formerly sold for forty shillings, has obtained in the market 8l.; nor is the land-owner made richer by doubling the rent of his land, when the product of this measure is taken from him by the increased price of necessities, and by accumulating assessments. It is trifling with us to invite us to estimate, politically, the value of land and its produce by its money-price. We need not tell Dr. Clarke that, when the clergy calculate for themselves, they do not proceed in this manner. The *pro* and the *contra* ought to be fairly exhibited. Let us see how far Dr. Clarke does this. He gives an ingenious abridged history of the rise, progress, and effects of commerce, in which he informs us that our trade has increased thirteen fold: but with this representation he exhibits none of the evil effects of this growth of commerce in drawing us into wars, and in raising the price of the necessities of life. He does not contrast the present state of the poor with their situation half a century ago, but only mentions obsolete laws respecting them and their condition in remote times.

* The reader will perceive that this article, as well as the book to which it relates, was written previously to the recent arrangements for Peace.

In the next chapter, on the History and Progress of Revenues, the vast increase of our revenue in later times, is considered as a proof of national ability. A formidable objection, however, Dr. Clarke observes, may be urged, viz. that we may be unable to support this vast revenue, which is stated to be fifty-six millions; and nothing that he advances, to obviate this objection, strikes us as satisfactory. Taxation, *probably*, will not be greatly decreased on the event of a peace; and we are not sure that our commerce will then equal its present extent. To *taxation*, however, Dr. C. is partial; and he asserts that, when 'well-regulated, it invigorates a nation.' Does he mean to say that taxation must invigorate, if carried to an unlimited amount, provided that it be well arranged?—Ought not our relative situation with foreign countries to be taken into the account? Must not excessive taxation, however well-regulated, tend to embarrass trade by permitting other states to possess advantages in the price of manufactures, and thus diminishing the demand for the produce of our own industry?

Dr. Clarke makes a light estimation of our enormous debt and taxes; assuring his readers that our 'gigantic strength will disregard the weight of the peace establishment:'—but here the Doctor is not consistent with himself; for, if *taxes invigorate*, how can he enumerate the liquidation of the debt, and the consequent diminution of taxes, among our blessings *in futuro*?—yet to this he points as to a happy prospect for the nation. This must be Arabic to John Bull: who will also as little comprehend the author's distinction, when he says that our commerce has advanced '*during war, but not by war.*' The successes of our arms have unquestionably been a source of increased trade. Our victories have for the present thrown the commerce of Europe into our hands; and the security of our insular situation, guaranteed by our all-triumphant navy, has made Great Britain the emporium of the world. Thus has our great trade been assisted *by* the war. As Dr. Clarke, however, will not allow this, neither will he admit that this augmentation of trade will be terminated by a peace. We must refer our readers to the work for his reasons.—His statement of the increase of our commerce, during the present war, demands exhibition:

The Commerce of Great Britain amounted,		
according to the official rates, in 1793, to	£. 39,666,000.	
Ditto - - - - in 1799, -	62,828,000.	

Increase during war - - -	£. 23,162,000.
---------------------------	----------------

While Dr. C. makes a splendid display of the effects of commerce, he sinks the quantity of the public debt. Representing

its real value to be about 271,000,000*l.*, and then deducting this trifling sum from 2,300,000,000, the total value of the national property, (according to Mr. Beeke's statement,) he triumphantly asks, "How are we ruined?"

Farther to satisfy the reader, (who, it is benevolently hinted, 'if he be not convinced, is more intitled to our pity than indignation,') Dr. Clarke proceeds to another view of the subject, viz. a valuation of the industry of the people at so much per head; and finding *two hundred pounds* to be the value of each man, woman, and child, taken collectively, and *four hundred pounds* to be the value of each adult, he deduces it as a corollary, that it is cheaper to buy foreign soldiers than lose our own men.

It is certain that our *internal* have kept pace with our *external* exertions during the war; since, in the four years before the war, (from 1789 to 1792,) Parliament enacted 138 bills of inclosure, and 30 navigation and canal bills; whereas, in the four succeeding years (from 1793 to 1796) of expensive war, there were passed 283 inclosure bills, with 69 navigation and canal bills; and the sums authorized to be borrowed on the latter amount to £.7,415,000. The reader, however, will be surprized to learn that, with this additional number of inclosures, our importation of corn has increased; especially when he is informed, by a table exhibited in this work, that during his present Majesty's reign *two millions eight hundred and four thousand acres* have been inclosed; while in Queen Anne's reign, there were only 1,438, in that of George I. 17,666, and in that of George II. 318,778 acres inclosed.

Taking the number of acres in the United Kingdom at one hundred millions, and supposing that two acres can support one person, Dr. C. concludes that our population might be increased to *fifty millions*;—some waggish remarks might be made on such an estimate: but we shall not venture on this delicate ground.

As our limits obliged us to bestow but slight notice on Dr. Clarke's chapters on the progress and state of the Public Funds, and on Agriculture and Waste Lands, they also require us entirely to pass over those which respect the State and Progress of Population in Great Britain and Europe, and the Progress of our Naval and Military Power; though each of these chapters affords much curious matter, and is illustrated by several interesting tables: especially that which gives a comparative view of the principal states of Europe. (See p. 199.) We must now proceed to consider the Appendix to this work, which relates to the *High Price of Provisions*.

Here Dr. C. advances the opinions that our *unparalleled prosperity* is one cause of this high price; and that our population has augmented far beyond general supposition, while there is a real and considerable deficiency in the growth of corn. We apprehend that he is wrong in both these statements. It does not appear, from the actual returns, that our population is so vastly increased; nor has the price of corn, for many years back, indicated any material scarcity. The bad harvest in 1799, which the author does not mention, will account in a great measure for our late deficiency. We have not yet recovered from the loss which we then sustained; and the extent of our warlike exertions has augmented our difficulties. We trust, however, that another harvest, should it please God to grant us a favourable one, will brighten our prospects; especially if the blessing of peace* be added to the gifts of a plentiful season.

ART. XVI. *Select Essays of Dio Chrysostom*, translated into English from the Greek, with Notes, critical and illustrative. By Gilbert Wakefield, B. A. 8vo. pp. 256. 6s. Boards. R. Phillips, &c. 1800.

WHEN the reader recollects that Dio Chrysostom was dignified by the friendship of Trajan, and particularly distinguished by that excellent Prince, he will not wonder that the late ingenious and learned Mr. Wakefield † should avail himself of his works to beguile the tedious hours of confinement; nor will he be surprized on finding many valuable observations occur in these pages, with so little alloy of false taste, of puerility, and of inconclusive reasoning:—faults chargeable on the Platonic School in all its several stages, and from which its illustrious founder himself was by no means exempt, though they were counterbalanced by the richness of his fancy and the fascinations of his style.

We shall make some extracts from Mr. W.'s Preface, in which he gives an account of his author:

* See the note in page 191.

† The fatal effects of a fever have recently deprived the world of this accomplished scholar, when he had not long been released from the imprisonment to which he was sentenced, about two years since, for the publication of a pamphlet which was deemed libellous. Whatever faults might shade his character, particularly in the view of parties, his loss will be long felt and his attainments still longer acknowledged by the literary world.

‘ From the memorials of DION, or DIO CHRYSOSTOM, which have been transmitted to our times by himself, by Phœtius, Philostratus, or others, and investigated by Fabricius in that immense and inestimable repository of ancient literature, the *Bibliotheca Græca*, lib. iv. cap. 10. we collect, that our author was the son of one Pasigrates, that his grandfather was honoured with the title and privileges of a Roman citizen by the reigning emperor of his day; and that he was born at Prusa in Bithynia.’—

‘ He was familiarly acquainted with Apollonius of Tyana and Euphrates of Tyre, during the reigns of Nero and Vespasian. When he arrived at manhood, he travelled into Ægypt and other countries for the improvement of his understanding by a survey of their curiosities, and by conversation with their inhabitants. On his return to Rome, his freedom of speech (that unpardonable offence to all TYRANTS, and the true touchstone of POLITICAL VIRTUE in every community) in conjunction with his friendship for a man of honour, whom Domitian had put to death, endangered his life with that despotic monster, and drove him into banishment, about the year ninety-four of the Christian æra, with no other companions of his exile besides Plato’s dialogue on the Immortality of the Soul, and a single oration of Demosthenes. From the manner in which he mentions the Getæ, Mysians, and Thracians, in several passages of his works, he seems to have penetrated during this pilgrimage to the very extremities of the Roman empire. He was recalled from banishment by Nerva, and was caressed by that emperor, but more particularly by Trajan, who conspicuously displayed his esteem and affection, by admitting our philosopher to accompany him on extraordinary occasions, when he rode in his triumphal chariot through the city. That magnanimous prince, the sovereign of the world, did not think himself disgraced by being seen in the procession of Imperial Rome with a man of letters sitting by his side.

‘ Dio’s character, as a moral præceptor, an eloquent writer, and a graceful speaker, was in high estimation with his contemporaries and his successors in the same rhetorical department. He acquired the additional name of *Cocceianus* from his patron Cocceius, and of *Chrysostom*, or *golden mouthed*, from the elegance and purity of his compositions: a name, which has occasioned a frequent confusion of our *Dio Chrysostom*, the heathen philosopher, with *John Chrysostom*, the Christian preacher, so denominated for the same solid and splendid excellences of his style. In person our author is reasonably presumed, from various circumstances of praise and censure on these topics in his orations, to have been slender, and of inferior stature. He was married, brought up children, and lived to a good old age.’

It is then stated, that a second volume of these translations would make its appearance, if the present should meet with public encouragement:—but this addition, we suppose, is not now to be expected. Yet it is obvious that curious readers may derive advantages from the perusal of such a production as this, which they will not reap from a modern performance of even superior merit. A work like this brings them back, by its allusions

and illustrations, to those characters and scenes which occupied their youthful studies,—exercises their powers of recollection,—and gives them a deeper insight into antient customs and manners.

The subjects of the essays here selected for translation, from the very voluminous productions of Dio, are as follow : Kingly Government; Arbitrary Government; Diogenes, or concerning Servants; Grief; Immoderate Desires; the Cultivation of Letters; Retirement; Happiness; the Conduct of Men at a Public Dinner; Charidemus; a Libyan Fable; concerning the Dæmon; Diogenes, or concerning Virtue; Slavery and Liberty; War and Peace; and Diogenes, or the Isthmian Discourse.—We shall quote a few passages from two or three of the papers.

The following sketches of a tyrant's situation and feelings, in the Essay on Arbitrary Government, have much merit :

‘ The very summit of absurdity was that, whilst unarmed men were a terror to him, the Persian monarch trusted his life to the fidelity of a military guard; and all, who came into his presence, were searched for weapons, though he lived surrounded by the weapons of his soldiery : so that he fled from unarmed to armed men, and again from the armed to the unarmed ; for he was defended from the populace by his body-guard; and from his body-guard, by eunuchs. Thus, without confidence and without refuge, there was no man, with whom he could pass a single day disengaged from terror. His meat and drink were a cause of perpetual suspicion, so that previous tasters were employed ; as scouts are sent before in a road infested by an enemy. Nay, even on his dearest relatives could he not repose with comfort and security ; neither on wife, nor children. Yet, though royalty was accompanied by such vexations and infelicities; he had neither inclination nor power to dismiss the incumbrance from him ; whereas all other calamities of men admit some consolation in the prospect of a temporary respite. The prisoner expects his liberty at some future period ; to an exile there is always a possibility of return to his native country ; the sick entertain hopes of recovery to the last moment of their lives ; but for this monarch no means of deliverance can be found. They too, whom Fortune has afflicted by the death of friends, well know, that Time will at length mitigate their sorrow ; but his disquietudes crowd upon him with perpetual increase.’—

‘ To kings alone no gratitude is paid for the favours which they confer, because such favours are thought inadequate; and those, who fail in the attainment of their requests, are converted into most bitter enemies : not to mention, that men in proportion to their opulence are objects of envy, however justly that opulence may have been acquired : tyrants of course excite envy above all mankind. Add to this the necessity of gratifying all around him, if he mean to shun instantaneous destruction : but all cannot easily be gratified, without robbing others : these are converted into enemies, while the objects

of his favour are suspected, and eager to abandon him. Thus, what is distant, he fears for that very reason; and what is near, because it is about his person. From the remote, he is expecting war; from those at hand conspiracy. Peace he regards as inexpedient, because it gives leisure to his subjects; and war, because they are necessarily burthened with supplies, and harassed by military hardships. Thus, in war, his affections are set on peace; and, when peace is accomplished, he immediately employs himself in contriving war.

‘ In a state of public plenty, tyrants dread the insolence of the common people; in a time of scarcity, their resentment. They see no safety for themselves, whether abroad or at home, in public or in the palace; neither can they frequent any place with confidence: all are beset with plot and treachery.’—

‘ If men converse with him under no restraint, he is angry, and alarmed by this freedom: if they cringe and crouch before him, that servility of homage excites suspicion. Liberal intercourse is regarded as an insult; humility, as a stratagem. From reproach he feels much more uneasiness than others; because a tyrant truly is reviled! and praise communicates no pleasure, as the suspicious offspring of insincerity. Of those most valuable and honourable acquisitions he is wholly destitute, good-will, and friendship. From no man can he hope for kindness: for a keeper will sooner contract an affection for the ferocious lion, than servants and courtiers for a tyrant.’

Some passages in the *Essays on the Conduct of Men at a Public Dinner*, and concerning *Virtue*, exhibit striking pictures of ancient manners:

‘ With respect to large popular assemblies, the purpose of some, who frequent them, is merely a curious survey of the various spectacles and games; and such visitors, as are strongly actuated by this curiosity, employ themselves on these objects from morning to night. Many constitute a mere collection of market-people, who bring their commodities to sale; some make a public exhibition of their ingenuity by exposing works of art and various manufactures; some display their philosophical attainments in lectures; others read publicly their tragedies and epic poems, or their compositions in prose, to the no small annoyance of the man, who came for relaxation and amusement: which description most resembles those hummers and singers at an entertainment; to whom you are compelled to listen even in your own despite. Now, among those literary exhibitors, that man, who is able to produce an useful and edifying treatise, and lead the assembly to a proficiency in virtue and decorum, enjoys an exemption from the general turbulence of the crowd, and collects their attention to himself.’—

‘ There happened to be collected at this time, around the temple of Neptune, a set of rascally sophists, clamouring, and reviling one another, with such as called themselves their disciples, in sharp contention with their associates; and a variety of authors reading publicly their senseless compositions: many poets also singing out their poetry, in the midst of applauding auditors; with a large company of conjurers, exhibiting their tricks; abundance too of fortune-tellers, delivering their marvellous interpretations: thousands of de-

claimers, with their puzzling law-questions and decisions; and not a few mercenary tradesmen, in the exercise of their imposition on all within their power.'

To the first of these passages, the translator adds the following note:

'The meetings here meant were collections of people from all parts of Greece and the Grecian colonies, resembling some of our *Fairs*, half a century or a century ago, in England; such as *Stirbitch fair* near Cambridge; of which, the celebrity, the æconomy, and the humours, are curiously and successfully described in a long poem of the *Muse Anglicana*.'

A happy specimen of the Platonic manner occurs in the latter of these two essays:

'Besides the contention, however, with LABOURS, another conflict is appointed for us, not merely more formidable than those, which I have stated, but, in reality, arduous and perilous to a degree incomparably greater, the conflict with PLEASURE; who does not oppose with open violence, but ensnares by subtleties, and beguiles with a cup of most bewitching poisons. Her battle bears no resemblance to the battle thus described in Homer's poetry:

'Then at the ships a combat sharp arose
With renovated fury: faulchions long,
Deep-gashing hatchets, dealt destruction round.'

Her battle, I say, corresponds not to this description. Direct assault is not the method, to which Pleasure has recourse; but delusive artifice, and the fascination of dire enchantments, are her weapons; enchantments, like those, by which the sorcerous Circe, as Homer relates the story, was able to bewitch the companions of Ulysses; transforming some of them into swine, some into wolves, and others into every variety of savage beasts.

Such is the character of Pleasure! Her insidious attempts are not confined to a single process: she endeavours, by machinations infinitely multifarious, to accomplish the destruction of mankind, whether waking or asleep, through the instrumentality of all their senses, their sight, their hearing, their smell, their taste, their touch; by their meat also, their drink, and their lustful appetites. No security can be found in sleep from stationing a row of watchful sentinels, as against an ordinary enemy, because her principal attack is conducted during that season of repose; partly by engaging sleep himself to ensnare and enslave them, partly by sending forth against them deceitful and plotting dreams, to recall her to their recollection. Labour, for the most part, makes his approaches through the medium of the Touch; but Pleasure commissions the collective senses of our constitution to execute her purposes. With Labour it is our interest to grapple in a close encounter; but Pleasure we must flee with all possible precipitation, and should maintain no more communication with her, than what unopposable Necessity may exact. In a contest with Labour, the most resolute combatant proves the most successful; but the truest resolution is displayed by a hasty and distant retreat.

retreat from Pleasure : because an escape from entire perdition is not possible to him, who comes into contact with this fatal adversary, or hazardingly attempts a frequent communication with her. When she once prevails, and has established an influence over the soul by her magic potions, then succeeds the metamorphosis of Circe, who strikes the victims with her wand, and afterwards finds no difficulty in compelling them to the close confinement of a sty : from which period they unchangeably continue to the latest period under the semblance of a swine, or wolf.'

We must, however, refrain from additional extracts, and refer our readers to the work itself for that farther gratification which, we doubt not, they will desire.—The notes of the editor form ingenious and pleasing illustrations of the text. Several quotations from the poets of antiquity are there introduced and translated by Mr. Wakefield; who appears, from these specimens, to have been well qualified for giving faithful and spirited versions of this nature.

ART. XVII. *Political Recollections relative to Egypt*; containing Observations on its Government under the Mamaluks;—its Geographical Position;—its intrinsic and extrinsic Resources;—its relative Importance to England and France; and its dangers to England in the Possession of France: with a Narrative of the ever-memorable British Campaign in the Spring of 1801. By George Baldwin, Esq. late his Majesty's Consul-general in Egypt; and attached to the Commander in Chief during the above glorious Campaign. 8vo. pp. 227. 6s. Boards. Cadell junr. and Davies. 1801.

"THE land of Egypt" has been celebrated from the remotest antiquity; and its advantageous situation for commerce was well known to the Greeks and Romans. The improvement of geography, however, enables us to appreciate the value of its position more accurately than the traders of former times, who practised only a timorous navigation, and were but partially acquainted with the coasts of the old continents. If a geographer were desired to point out, on the map of the world, the spot most adapted for the emporium of universal commerce, he would put his finger on Egypt. It is of importance to all the nations bordering on the Mediterranean Sea, that the commodities of the East should pass to them through that country; of which the French have long been convinced, and have therefore sighed for its possession. Mercier, in his Romance written several years prior to the Revolution, describes France, in the state of renovation and glory in which he saw it in his dream, as the possessor of Egypt; and it is probable that Bonaparte's

part's eastern expedition was founded on an old plan, projected long before the monarchy was disturbed. Be this, however, as it may; England could not observe this bold attempt with unconcern, since Egypt was seized by the Gallic republicans not merely as a position favourable to the commerce of France and to the other Mediterranean states, but as a spot from which our extensive possessions in the east might be advantageously annoyed. Of all our expeditions, therefore, fitted out during the war, that which was destined for Egypt was most rational in its object, and has been the most glorious and successful in its termination.

From all these considerations, the volume before us will excite a lively interest. It is not the work of a mere author, but of a man of sagacity and experience. It does not recommend itself by correctness of language, but, as we are inclined to think, by correctness of detail. The writer is well acquainted with the ground on which he takes his present historical station; since, for one and thirty years, he has maintained an intercourse with the greatest part of the Turkish dominions. During his residence in Africa, his dispatches have afforded the opportunity of expelling the French twice from India; and he has repeatedly, before the French incursion, recommended it to our Government to consider the value of Egypt as communicating with our Empire in the East. His knowledge of that country was esteemed so important, that he was sought in his retirement in Italy, and attached to the Commander in Chief of our expedition; and having been a spectator of the three memorable actions of the 8th, 13th, and 21st of March, his narrative must highly gratify the public curiosity.

The contents of this volume are not uniformly arranged; and indeed it is evidently composed for the occasion from various materials.—The preface gives some account of the author, by which his qualifications to discuss the proposed subject are unquestionably evinced. He informs the reader that, in Feb. 1760, he was landed on the Island of Cyprus;—that in 1763 he went over to St. Jean d'Acre;—that he thence had an intercourse with the Egyptians till 1767;—that he contemplated the scene before him with that spirit of investigation which determined him to abandon all other pursuits, and to follow up the scene of adventure which opened to his view:—that, with his mind full of his scheme of exploring the connection that there might be, of whatever nature, between India and Egypt by the Red Sea, he came to England in 1768, where he applied for and obtained leave to go as a free mariner to the East Indies;—that he then returned to Cyprus, and in 1773 passed over thence into Egypt;—that he

was at Grand Cairo in the time of Mahomet Bey, who gave him every encouragement to persevere in his plan ;—that he was prompted to go to Constantinople, in order to make it known there :—that in 1774, he returned to Egypt and went to Suez, but that, discouraged by some untoward circumstances, he came back to Cairo and thence to England ;—that, having scarcely reached London, when he heard of an adventurer arriving at Suez from Bengal, he resolved to return, and was at Alexandria in July 1775 ; where he succeeded in establishing a direct commerce from England to Egypt, the navigation from India quite up to Suez having been explored. ' In 1776, 1777, and 1778, (says Mr. B.,) ships were arriving at Alexandria from England, and at Suez from India, at the same time. We composed our bowl of the Ganges, the Thames, and the Nile, and from the top of the pyramid drank prosperity to England.'

Mr. B. then acquaints us that, by this channel, he was the first who conveyed advices to India of the war in 1778, so that the French were expelled from India before succours could reach them : but that, the Turks being jealous of his scheme, and we ourselves not aware of its importance, he was forced to abandon it and returned to England ;—that, it being afterward known that the French were estimating the worth of Egypt to France, and in 1785 had concluded a treaty with the Beys, Government sent for him, and he was desired to prepare a memorial on the subject, which is here printed ;—that, in consequence, he was appointed Consul-General in Egypt, and entered on the functions of his office at Alexandria in Dec. 1786 ;—that, after four years' service, the office was abolished as unnecessary ;—that this shock was so great to him, as to bereave him of strength and of every faculty ;—that, being advised to embark for another climate, he left all his property, and sailed in 1798 for Patmos, and the Grotto of the Revelations ;—that hence he went to Trieste and Vienna, and then sought a retirement in Italy ;—that, being disturbed in his solitude by the battle of Marengo, he went to Leghorn, where he was surprised by the Republicans, but, taking refuge on board one of his Majesty's frigates, he was conveyed to Naples ;—that here a letter reached him from Sir Ralph Abercrombie, requesting that, as his knowledge of the country to be invaded was essential to the public service, he would join the army at Malta ;—that with this request he cheerfully complied, entered Egypt with the British forces, and left it only to bring to England the news of victory, and the standard of Bonaparte's invincible legion.

After

After having thus given a history of himself, Mr. B. offers speculations on the situation and resources of Egypt, made as opportunities favoured from 1773 to 1781, and thrown together in 1785. These suggestions respect its situation relative to other parts of the Globe;—its commerce, productions, and commercial resources;—its government;—its means of conquest;—its present state, and its capability of defence;—its importance to England in subservience to her connection with India;—its importance to France, and the facility with which it may be conquered. To these considerations is added a letter to Mr. Dundas, dated Dec. 9, 1800, in which is urged the necessity of our first assisting the Allies in Italy, before the army went to Egypt. Mr. B. allows, however, the vast importance of this ultimate object of the expedition. ‘France, (says he,) in possession of Egypt, would possess the master-key to all the trading nations of the earth. Enlightened, as the times are, in the general arts of navigation and commerce, she might make it the emporium of the world: she might make it the awe of the eastern world, by the facility she would command of transporting her forces thither, by surprise, in any number and at any time, and England would hold her possessions in India at the mercy of France.’—It is happy for us that the French are expelled: but Mr. Baldwin is of opinion that the country should not revert to the Turks, and he would have us retain the possession of it.

The next section is occupied by considerations for the army on the Egyptian expedition, respecting the climate, the disembarkation of the troops, and the plague. On this last subject, we have a distinct essay, in which Mr. B. endeavours philosophically to explain what the plague is, and to prescribe a mode of cure. His remedy may be good, though some readers may treat his philosophy with no great respect. He decides that the disease called the plague is an acid, and that it may be cured by anointing the body with oil; since, as an acid, it has a predilection for oil, and will leave the human body to fly to it. His recipe, therefore, is, as soon as the plague appears, to rub the whole body with pure olive oil; and he says that he has repeatedly seen the good effects of this application.

The last and most interesting paper is the narrative of the British Campaign in Egypt; and this brief history must be perused by every Briton with pride and exultation. The intrepidity of our troops in landing, and in repulsing the enemy, is well described, and they seem indeed to have achieved wonders.—Respecting the memorable action of the 21st, a

circumstance is mentioned which contributed to our victory, though it was not designed for this purpose:—The soldiers had made a number of holes, about three feet deep, for shelter when sleeping: over the ground thus excavated, the charge of the French cavalry was made; and owing to this circumstance they were completely routed.

‘The scope and jet of this attack on the morning of the 21st of March, (observes Mr. B.) was to cut off all our reserve, encamped from the centre to the right.

‘They had offered a Louis-d’or per man to any thousand who would undertake to turn our right, and take the battery which defended it. Bonaparte’s Invincible Legion, consisting of nine hundred men, volunteered for the service.

‘At the same time that these should turn our right, the main body of the French army was to break our line in the centre, turn to the left, and envelop our reserve. At the moment this was executed, the French Cavalry, fifteen hundred in number, were to charge the body so enveloped, and cut them to pieces.

‘The nine hundred of Bonaparte’s invincible legion succeeded in turning our right between the walls of a large ruin and our battery. They stormed the battery three times—and were three times exterminated to a man!

‘Our reserve, the forty-second and twenty-eighth, finding the enemy in their rear, faced about and charged them with the bayonet, and drove them backwards step by step into the inclosure of the ruin. Six hundred and fifty of these invincibles were already extended on the ground; the remaining two hundred and fifty called for quarter, and obtained it. Not a man of them returned!—this was a business of twenty minutes.’

Mr. B. does not mention our loss in men, but he records with concern the death of the gallant commander in chief; and he relates a reflection of Sir Ralph’s mind, which was worthy of a truly great General. ‘These victories make me melancholy,’ said poor Sir Ralph, when he was complimented on his victory gained on the 13th. ‘To see so many brave men go to death for their country; so much the more to be admired; so much the more to be regretted; it does indeed make me melancholy; but how are battles to be won?’

The volume concludes with stating, in a letter to Mr. Dundas, the advantages of Egypt as a colony; and with urging the vast importance of retaining it in our possession:

‘To enter into a detail of this commerce (the author observes) would surpass the bounds of a letter, but it may be to your satisfaction to know that in rice, and grain and coffee, and ~~cocoa~~ and ~~flax~~, and hemp and sal ammoniac, and myrrh and aloes, and gum of all kinds, and ivory and safflower, and hides and indigo, and sugar and an

an infinite variety of articles useful to our consumption and manufactures, a thousand cargoes may easily be composed and annually imported from Egypt to England. Do I say a thousand ships? Yes! A thousand, and I have left out of my account the lake Natron, producing a salt, answering all the purposes of soda in bleaching and in making of soap, equal to a thousand cargoes more, if required.' — 'If it can be held to England, she may talk of jewels in her crown, but a brighter than this she will not possess.'

Though the preliminary articles of Peace (on the return of which, we most cordially congratulate our countrymen, and the whole civilized world,) have diminished our interest in these reflections, yet Mr. B.'s account must no doubt have so far impressed our government with the importance of Egypt as a station, that henceforth a watchful eye will be kept on it; and a British Consul will probably be always maintained there. If so, who is so fit for this office as Mr. Baldwin himself?

The author's style is not always English. He coins a variety of words, as *to irrupt*, *to insurge*, and *bumeet*. He uses *extinguish* as a verb neuter, and the substantive *repair* to express a place of retreat. These, however, are venial faults, to be excused in a man who has been long absent, on public important duty, from his own country.

MONTHLY CATALOGUE,

For OCTOBER, 1801.

HISTORY.

Art. 18. *The History of ancient and modern Egypt*: comprehending a View of the natural Phenomena: the Efforts of Genius and Art; and the Moral, Religious, Commercial, and Political Transactions, from the earliest Dawn of Intelligence, to the latest Period of authentic Information. Comprizing likewise, a Comparison betwixt the ancient and present State of Egypt, and a Philosophical View of the remarkable Productions connected with the History of that Country. From the most authentic Records. By J. Franklin, Esq. Vol. I. 12mo. 5s. 6d. Boards. West and Hughes. 1800.

We have not been very prompt in announcing this work; and had its author taken from us the opportunity of noticing it in its present unfinished state, by delaying the publication of it till it had been completed, he might have enabled us to discharge our duty more to his and our own satisfaction. The eagerness which Mr. Franklin and his friends have here shewn, to push the present volume into the world, is peculiarly inconsiderate and unfortunate. While Egypt is occupied by the troops of England and of France, and while it is natural to expect some important new information and discoveries,

coveries, the writer of its history ought not to be precipitate. We are aware that it may be said that the errors or omissions of the first volume may be corrected or supplied in the second: but it is better to avoid the necessity of such emendations, and not to risk publication at a time when the author's view of his subject must be incomplete. Mr. F. should have contented himself, for the present, with procuring *materials* for the history of Egypt; and we lament his precipitancy in having done more. Marks of haste are evident even in the title. In p. 9. the town at the commencement of Upper Egypt is properly spelt *Syene*, but in p. 14. it is called *Sienna*, which is the name of a town in the *ci-devant* Tuscany.

Even respecting the name of Egypt, Mr. F.'s statement is incorrect. He says that the Hebrews called it *Shibor*. The word, however, in the Hebrew Bible, which we render Egypt, is *Mizraim*. *Shibor*, or *Sihor*, i. e. *fluvius turbidus*, is not a name of Egypt, but of the Nile.—In p. 19. we have *authenticity* for *accuracy*; and in p. 52. after a high compliment to Mr. Bruce*, we are informed that his account, 'though it may be *disputed*, cannot be *controverted*.'

Mr. F. considers Egypt (he probably would have been more correct had he said Chaldea) as the spot on which mankind first lighted the torch of science; and he offers it as his opinion that this celebrated country might be restored to its former greatness and fertility, if it were in hands of any other people besides the lazy Turks.

* A kind of prospectus of this undertaking is given as follows:

'That our readers' attention may not be bewildered in contemplating the infinite variety of subjects of wonder and delight, which the history of this renowned country presents, we will consider it in the following order, viz.

'*First*, The natural phenomena, or curiosities of Egypt; and the efforts of genius and prodigies of art of this wonderful people.

'*Secondly*, The history of political transactions under the different kings, from the earliest dawn of intelligence to the period of the fall of the Roman Empire.

'*Thirdly*, Historical and commercial view of the countries adjacent, and connected with Egypt.

'*Fourthly*, An account of the polity, topography, manners and customs, commerce, &c. since the time of the caliphs, to the present period.

'*Fifthly*, The history of political transactions, from the revolution in Egypt brought about by the caliphs, to the late occurrences in that country.

* In illustrating these great divisions, the natural as well as political history of this country will come under discussion; with a comparison betwixt the ancient and present state of Egypt,—which, considering the revolution recently taken place, claims a high degree of attention and regard.'

* As Mr. Bruce is deemed such indisputable authority, we are surprized that Mr. F. has not given that traveller's handsome map, instead of the miserable one which stands at the head of this volume.

A general

A general preface is intended for the concluding volume; in which the author promises gratefully to acknowledge the liberal assistance which he has received.

AGRICULTURE, &c.

Art. 19. *The Corn Trade investigated, and the System of Fluctuations exposed:* with a Proposition most humbly offered for the Consideration of the Legislature, which will effectually remedy the alarming fluctuating Prices of Bread Corn. And an Investigation of the Import and Export Laws: with some Remarks on the landed Interest and Agriculture of this Kingdom; clearly justifying the Farmers, vindicating the Dealers and Merchants, and affixing the Stigma on the proper Objects. By Buxton Lawn. A New Edition, with large Additions. 8vo. pp. 112. 3s. West and Hughes. 1801.

Mr. Lawn speaks of himself as 'lowly situate and out of the sunshine of favour;' being now only a baker, at Bath, with adversity for his lot, though he once hailed prosperity as his own. He was, he tells us, the son of a respectable Norfolk farmer; was celebrated in the field as a practical agriculturist, where he was victor at nine ploughing matches; was transplanted from the fields which his ancestors had tilled, into an office under government; and was for 20 years in the correspondence department of the excise office, London. The cause of this change of situation he does not explain: but, as a baker, he congratulates himself on the flattering attentions which the first edition of this pamphlet procured for him; and he now, with some confidence, presents this enlarged impression to the attention of the public.

It is here contended that the farmers, millers, and bakers, are not deserving of the odium which has been cast on them; and that to the corn and flour factors, and to the system of factorage, we owe the evils of high and fluctuating prices. Hence the author proposes to suppress or contract the improper practices of *factors*; who, he is *firmly of opinion, should not be allowed to be dealers in corn*, any more than the distiller is permitted to be a rectifier, the tanner to unite the calling of a currier with his own, or the importer of foreign wines to trade in sweets. He recommends public granaries and mills, and states his reasons for preferring large to small farms.

In the second part, he undertakes '*shortly and briefly*,' (this is like the alderman's toast "*a speedy peace and soon*,") to give the history and mystery of factorage; and if his statements be accurate, factors may well afford their splendid equipages, superb town residences, and elegant country villas: but we apprehend that their profits must here be greatly exaggerated. Mr. Lawn is, however, just in stating that '*the object of the factor is a fluctuating market*;' and he has truly prophesied that, '*in the falling, there will in future be observed a slow and progressive motion, because a latitude must be given for the bakers to work off, not their own stocks in hand, but those of the factors.*'—The existence of an iniquitous system in the corn-market is very seriously lamented: but, at the same time, Mr. L. tells us that he will forfeit his life, if the adoption of his plan did not effectually

ually remedy this evil.—His ideas, we think, merit the attention of the legislature.

Art. 20. *The Case of the Farmers; with an Appendix, and a Dedication to the Board of Agriculture; and an Address to all present and future Writers on Agriculture.* By a Hertfordshire Farmer. 8vo. 1s. Badcock, &c. 1801.

The *oppressed Farmer (risum teneatis!)* is here recommended to our compassion; and after the most profitable period ever experienced by the cultivators of land, we are informed by this writer that agriculture is forced into an unnatural degree of depression.—We sincerely pity the *poor farmer!* His case is miserable in the extreme! He cannot get rich, and is forced to enjoy the pleasures of life by stealth! Landlords should therefore consider the *hard conditions* by which these men hold farms, and the public should be willing to give *higher prices* for grain. This would satisfy the *clouted shoon* Hertfordshire farmer; who, while he represents his condition as depressed, and the case of his brethren as deplorable, evinces in his style the marks of learned leisure, and resembles the character which his signature denotes, about as much as Achilles resembled Therites.

Art. 21. *Auxiliary Remarks on an Essay on the "Comparative Advantages of Oxen for Tillage in Competition with Horses."* In a Letter to Sir John Talbot Dillon, Knt. M. R. I. A. &c. &c. to which is added sundry Communications on this interesting Subject. By William Tatham, Author of the Political Oeconomy of Inland Navigation, Historical Essay on Tobacco, &c. &c. 8vo. 1s. 6d. Scott. 1801.

Contributions on the subject of agriculture and rural affairs flow in from every source; the practices of every district, and of all countries, are minutely detailed; and if our rural exertions keep pace with our closet labours, the Empire must experience a marvellous improvement. Mr. Tatham's 'auxiliary' mite has not much enriched the treasury of agricultural knowledge: but he has communicated several curious particulars, which may render his pamphlet amusing. To excite a partiality for the ox instead of the horse, he recounts instances of 'bovian speed;' and he gravely records that a person in America had 'an ox, whom he would match with the swiftest running horses, with only this difference, that the ox should start with his head pointing the way he was to run, while the horse was to stand in the contrary direction.' Mr. T. also speaks of oxen being ridden with the saddle; and he tells us, in order to prevent the experiment of working a bull with an ox, that it is certain, 'if a bull and an ox are worked together, that the breath of the bull becomes fatal to the ox, and will waste him till he dies.' How great soever the prejudice may be in favour of horses for the purposes of husbandry, he observes that, in one respect, oxen are certainly 'preferable in a hilly country: they will in any event hold on what they have gained in an ascent, and will never give back like horses; and as to economy of food, they will live on straw and the refusal of horses.'

On this subject, much may be said on both sides.—In a subjoined extract from a letter by Granville Sharpe, Esq. on land carriage, roads,

roads, and the profitable labour of oxen, a quotation is made from Virgil's *Georgics*, which is remarkably incorrect; and its egregious faults are not noticed in the table of errata at the end.

The letter, however, contains some benevolent hints respecting the ill treatment of draught oxen by their stupid and unmerciful drivers, which we shall quote, in hopes of contributing to excite attention to these points from the compassionate husbandman:

'Oxen walk full as quick as horses, and more especially when harnessed single in little carts, they really walk as fast as drivers can conveniently keep pace with them, and they are as perfectly tractable and obedient as any horses can possibly be; though these poor oxen have really had much provocation to spoil and *misteach* them by the unfeeling carelessness of their drivers. Sometimes we have seen their cruppers drawn so tight under their tails that the poor animals have been cruelly galled, and when they have winced, or shewn a proper sense of the pain, they have received a violent kick *under the belly* by the cruel drivers, who are not allowed *goads* because of their manifest want of discretion in the use of them. Sometimes we have seen one of the largest oxen put into one of the smallest carts, the shafts of which have been far too short for the ox's body, whereby the sloping front of the cart has cruelly rubbed and jolted upon the poor animal's rump; and sometimes the collars are put on so tight as almost to strangle them.'

For our account of the work to which this pamphlet is a kind of supplement, see M. R. vol. xxi. p. 231. N. S.

MEDICAL, &c.

Art. 22. *A Treatise on Ophthalmia [Opthalmia]*; and those Diseases which are induced by Inflammations of the Eyes. With new Methods of Cure. By Edward More Noble, Surgeon. Part the First. 8vo. 3s. Robinsons. 1800.

Mr. Noble seems to be persuaded that a new treatise on ophthalmia (not, as he has every where spelt it, *opthalmy*) is wanted, on account of the 'light which has been let in upon us, by the doctrines of that great genius, Dr. John Brown.' We have not observed, however, that the Brunonian doctrines are calculated to excite attention to the history of particular diseases; it is rather probable that they have an opposite tendency. In the present instance, the new pathology has apparently produced no other effect, than that of swelling the pamphlet with an unnecessary dissertation on the laws of animal life;—which would have been just as well placed if the author had written on the culture of potatoes; and which might serve, as it has been said of Sallust's prefaces, to introduce any other subject with equal propriety.—Mr. N. however, has not discarded all the old doctrines; for, in p. 60, we find that he believes in the exploded notion of antagonist-muscles. In this case, we imagine, he is among "the last to lay the old aside."

This author combats the opinion that, in cases of gonorrhœa, inflammation of the eyes may be produced by metastasis from the urethra. His arguments may apply to most cases of the disease: but we conceive that the venereal irritation does certainly, in some habits,

habits, bring on ophthalmia, where no previous disposition to the inflammation had existed. It does not follow that the ophthalmia thus excited shall produce infectious matter; and from the neglect of this distinction, Mr. Noble's doubts seem to have originated.

In the practical part of this dissertation, however, Mr. Noble has shewn himself well acquainted with the best modern methods of treatment; and for diffusing a knowledge of these, his pamphlet may be safely recommended.—The *new Methods of Cure*, promised in the title-page, are reserved, we suppose, for his second part; which we have not seen.

Art. 23. *Medical Jurisprudence. On Madness.* By John Johnstone, M. D. 8vo. 2s. Johnson. 1800.

This pamphlet discusses a question highly interesting in every point of view. It is often extremely difficult, yet essentially necessary, to ascertain the actual presence and absence of insanity, in criminal trials; and there are few directions on the subject, either for lawyers or physicians. To set out the boundaries and land-marks of this field would be a performance worthy of the highest abilities, and would intitle the discoverer to eminent distinction: but, though we find much good sense, and many proofs of reading, in the pamphlet before us, we have to lament the deficiency of precise information on most of the perplexing points: In this case, we do not want declamation, however ingenious, but aphorisms and rules.

Dr. Johnstone, we observe, denies the existence of lucid intervals in madness. We think that he is in an error on this point. There is certainly a species of insanity which for a long period, sometimes for many years, is aggravated in a patient at certain intervals, especially at certain seasons of the year; and during the intermissions, reason resumes her sway in a very great degree, if not completely. This kind of mania is perhaps not so common as legal authorities have supposed, but that it sometimes occurs cannot be denied.

There is another case of insanity, for which Dr. J. has not allowed; yet much difficulty arises from it. We allude to that state of the disease in which the patient is aware of the particular hallucination which besets him, and conceals it for a while with great art, though he is unable to conquer its influence on his mind. Other perplexities might be pointed out, for this is a subject nearly uncultivated. We are glad, therefore, that so able a pioneer as Dr. Johnstone has broken the ground, and we hope that other labourers will follow him in a research which is so important to the interests of society.

Art. 24. *Memorials on the Medical Department of Naval Service.* Transmitted to the Lords Commissioners of the Admiralty. To which is annexed, an Address to Parliament, on the Expediency of amending the Laws relative to the Exportation of Corn. By William Renwick, Surgeon in the Royal Navy. 8vo. 1s. Longman and Rees.

Mr. Renwick has laudably employed himself in soliciting the attention of Government to the situation of a very important class of men; those who are intrusted with the care of the health of our gallant

seamen. Encouragement ought certainly to be given, to procure for them the assistance of high professional talents.

The letter on the corn-laws is very short:—it recommends the prevention of the exportation of corn, when scarcity is apprehended.

Art. 25. *Comparative View of the Theories and Practice of Drs. Cullen, Brown, and Darwin, in the Treatment of Fever, and of Acute Rheumatism.* By Henrique Xavier Baeta, M. D. 8vo. pp. 55. 1s. 6d. Johnson. 1800.

Dr. Baeta is an enthusiastic admirer of the doctrines of the Zoonomia, and a despiser of Dr. Cullen; and he has put his readers to the charge of eighteen pence, in order to furnish them with this information. As we have long ago delivered our opinion of those celebrated writers, we shall not resume the discussion of their merits in this place.—Dr. Baeta has illustrated his comparisons by cases taken from the books of the Edinburgh infirmary, which exhibit the practice of some of the professors in fever and acute rheumatism. These extracts will be read with more satisfaction than the author's comments on them.

Art. 26. *Observations on the Nature, Causes, Prevention, and Cure of Gout and Rheumatism:* to which are annexed, *Phænomena Physiologie*, issuing in the Cure of these Diseases. By William Peter Whyte. 12mo. pp. 122. 2s. 6d. Boards. Printed at Stourbridge, and sold in London by Rivingtons. 1800.

Mr. Whyte supposes that the existence of morbid matter in the system occasions the symptoms of gout: but to 'go more minutely into the nature and properties of it, would be inconsistent with his design, and unimportant to the generality of readers.' What might be the design of the author, in this treatise, we cannot undertake to determine: but we are sure that *all* his readers would have felt themselves infinitely obliged to him, if he had given them an adequate explanation of the proximate cause of gout. One piece of information, however, is here imparted, though we fear that few persons are sufficiently learned to profit by it: Mr. W. says;

'Health, depending upon the maintenance of the natural balance of power between the two principal agents in the body, Chemistry and Mechanism; if indiscretion give the predominance to either, whether our supineness anticipate it or not, the natural result, disease, will follow.'

The dissertation on the origin of gout is followed by a curious piece of reasoning, intended to prove that the peculiar causes of gout must produce that disorder, and no other. 'Any disease, therefore,' the author says, (p. 49) 'must be what it is.' This, as Sir Archy MacSarcasm observes, is an excellent remark, and very new.

On the subject of the cure of this disease, the author very judiciously directs patients to take—advice. On the proximate cause of rheumatism, the treatise becomes very poetical and obscure. Mr. W. seems to think that this complaint depends on the accumulation of heat in the body, in consequence of the application of cold.

Common sense, and dissections, inform us, on the contrary, that acute rheumatism consists in inflammation of the muscular fibre.

For the cure of rheumatism, like that of gout, Mr. Whyte recommends the attendance of a physician or surgeon!

The cases subjoined to this curious production are conceived in a similar strain. They only inform us that persons afflicted with gout or rheumatism have been cured by a few doses of—the author's medicines, which are not specified.

On the whole, the only specific information contained in this *Advertisement* is to be found in the last page: 'Patients attended at the author's residence, or families at their own houses.'

Art. 27. *A Cursory View of the Treatment of Ulcers*, more especially those of the scrofulous, Phagedænic, and Cancerous Description. With an Appendix, on Baynton's new Mode of treating old Ulcers of the Leg. By Richard Nayler, Surgeon to the Gloucester Infirmary. 8vo. pp. 180. 3s. 6d. Boards. Kearsley, 1800.

This treatise is judiciously composed; and the author seems to have attended diligently to the morbid appearances, and to have given a careful trial to the different methods of cure proposed in cases of ulcer. He does not profess to aim at novelty, but he has produced a work which, on account of its brevity, will be very acceptable to the younger part of the profession.

Mr. Nayler does not seem to have tried the method of Mr. Baynton in a sufficient number of cases, to speak decisively of its effects. The power of the adhesive bandage is now established by the concurrent testimonies of so many practitioners, that we apprehend that it is placed *extra omnem judicii aleam*. It is undoubtedly one of the most important discoveries of modern surgery; and if Mr. Nayler should again appear before the public, we hope to learn that he has largely experienced its benefits.

Art. 28. *Reasons addressed to both Houses of Parliament*, why a certain Class of the People, in a State of Disease, should be permitted to have the Benefit of Port Wine, as a Medicine, free of all Duty. By a Gentleman of the Faculty. 8vo. 1s. Becket. 1800.

The reasons offered in this letter are sufficiently cogent to obtain an assent to the writer's proposal in a court of medical judicature: but a court of commissioners of the revenue may see things in a different light. Perhaps the best thing that could now be done, for the lower classes of society, would be to encourage the brewing of good malt liquor. Less of low fever prevailed, before spirituous liquors became their common beverage, when a glass of good ale was to be found in every public-house.

POLITICS, &c.

Art. 29. *An Investigation of Mr. Morgan's Comparative View of the Public Finances*, from the Beginning to the Close of the late Administration. By Daniel Wakefield, Esq. 8vo. pp. 67. 1s. 6d. Rivingtons. 1801.

Figures, as well as fire-arms, have lately been brought into the most fierce opposition to each other; and between the approvers and

condemners of Mr. Pitt's administration, a singular hostility exists even in their financial statements. We wish not to become parties in these arithmetical battles; and, as we satisfied ourselves with merely abstracting the prominent features of Mr. Morgan's *View**, we shall pursue the same line in noticing the present investigation of that pamphlet.

Mr. D. Wakefield is a very strenuous advocate for the late ministry. He undertakes to correct Mr. M.'s details; and to shew that his conclusions are not such as the real state of the country and the conduct of that administration warrant. A consoling picture is exhibited of our growing prosperity; and we are assured that, if the nation's burdens are increased, its shoulders have been strengthened in more than an adequate proportion. Without employing any ungentlemanly or disrespectful expressions, Mr. W. accuses Mr. M. of great inaccuracy, and of making assertions in general terms which are not warranted by facts. While Mr. M. makes the amount of the funded national debt, in April 1801, to be 558,418,628l. Mr. W. states it at only 400,944,748l. While the former asserts that the peace establishment will require the enormous annual sum of 31 millions, the latter estimates it at little more than 22 millions.

Mr. W. thus draws a comparison of the state of the public finances, at the commencement and at the close of the late administration:

Annual Interest and Management of the Funded National Debt.		Income of the Sinking Fund.	
April 1801.	£. 15,177,834	-	£. 5,026,664
1786.	9,289,203	-	1,000,000*

In all the comparisons instituted by this panegyrist of Mr. Pitt's measures, the present triumphs over every former period. Thus the account stands of the charge of interest and annuities incurred, and of the produce of taxes to meet it, during the present and the two preceding wars:

Seven Years' War.	American War.	Present War.
£. 2,507,000	£. 5,012,000	£. 5,644,000.

* The products of taxes imposed for one year, in the present and two preceding wars, were

1,914,000	3,244,000	8,045,000.
-----------	-----------	------------

Consequently, there was a deficiency during the seven years' war of 593,000l.; during the American war of 1,786,000l. while there is a surplus above the charge of this war of 2,401,000l., applicable to the reduction of the national debt. Surely such a state of the public revenue is a theme of boast to the late minister.—Surely such a statement of the public revenue should enliven the hopes and cheer the spirits of the nation, instead of generating despondency and exciting alarm.

The pamphlet concludes with proofs of our increasing commerce, and with an enumeration of the principal measures carried into execution by Mr. Pitt while he was in power. Mr. W. however, does not undertake to decide whether his favourite minister has benefited or injured the constitution.—As he saw little prospect of peace, he ex-

* See M. Rev. vol. xxxv. N. S. p. 443.

urges his countrymen 'not to grow weary of the race till the course be run.' Thank God! the course of war is run; and we shall soon see what will be the exact sum annually necessary for the peace establishment.

Art. 30. *The Sound and Baltic, considered in a Political, Military, and Commercial View*: intended to illustrate the relative Connections, and Maritime Strength, of the Northern Powers. To which are added, Observations upon Egypt, and the Trade of India, as connected with the Baltic, or East Sea. Translated from a German Pamphlet, published at Berlin in April last. 8vo: 2s. 6d. Debrett. 1801.

The original work, of which a translation is here given, was written in defence of the principles of the Northern Confederacy; and it is intimated that it was published under the sanction of the Prussian Government. In some respects, it may be curious: but such has been the rapid succession of events since its first appearance, that it is now become in a manner obsolete. It develops the object of the French respecting Egypt, and discovers the envy which our Eastern possessions and commerce excite on the Continent. The author is surprized to see a little island, (England,) which he describes as 'feeble in itself and but thinly inhabited,' ruling the two great branches of trade, and dealing out at pleasure to the rest of Europe the productions of both the Indies. The destruction of this commerce is asserted to be necessary to the tranquillity of Europe: but we are informed that, before this can be effected, it is requisite that some strong maritime power should take possession of a middle point, (Egypt being of all others the fittest for the purpose,) between Europe and India.

Speculations are also formed, relative to the importance which the states bordering on the Mediterranean Sea would acquire, by means of a communication opened through Egypt to India; and on the evils which England must suffer by having the Baltic shut against her. Recent events, however, have rendered the discussion of these theories unnecessary; and we sincerely hope that the happy return of PEACE will lead nations to consider not how they may injure, but how they may benefit each other.

RELIGIOUS.

Art. 31. *Sermons on various Subjects.* By Edward Pye Waters, A. B. Curate of Great Barr, Staffordshire. 8vo. pp. 263. 7s. Boards. White. 1800.

After a perusal of these fifteen sermons, we think that it may be fairly pronounced, as a general character, that they exhibit considerable ingenuity, good sense, and ability; and that they are composed in an agreeable and impressive style. Two of them are Assize sermons, preached at Stafford in the year 1799. These relate chiefly to legislation and government: but they offer much pious and practical remark, though they are political,—as indeed are many parts of the volume. The French revolution, with the horrid atrocities which have occurred in many periods of it, the infidelity and atheism said to be prevalent not only in that country but in different parts of Europe,

Europe, together with other systems or principles, are topics here introduced: but we do not observe that their causes, such as the ignorance, superstition, bigotry, and cruelty of popery and tyranny, &c. are brought into view. The English establishment, however, secures the preacher's warmest admiration. 'If (says he) it may be asked, where are we to look for pure and undefiled religion; is it within the pale of the established church?—Most assuredly there, if any where.'—Again, 'as the happiest climate in the world lies between the extremes of heat and cold, so also in religion is there a temperate zone, equally distant from the fervor of enthusiasm, and the coldness of infidelity.' In this temperature is situated the church of England, thus established in the remotest point from every extreme.' Partiality itself, however, must acknowledge that whatever is human must be imperfect, and will admit of being improved. The Bæotian rustic was able to discern an essential defect in the admired production of the antient Grecian artist. Considerations of this kind are also calculated to teach us candour and moderation, both in our praise and our dispraise.—It is, at the least, questionable whether what this sensible author advances, p. 84, 85, concerning man's ability to reform himself, be in strict unison with the articles and homilies of our church.

The sermon on the parable of *The Prodigal* appears to us excellent, both in the affecting description of the wild and thoughtless youth, and in its application to the duties of parents and children. In like terms we should speak of the discourse on the *Works of Nature*, of that on the duty of loving our enemies, &c.: but it becomes necessary for us to conclude this brief notice of the volume, by observing that the last discourse is an apology for *decorating Places of Public Worship*; which is said to have been occasioned by the present of a painted window from Joseph Scott, Esq. to the chapel of Great Barr. We may be permitted to ask, whether there be not some danger that these ornaments should divert the attention of the congregation from the service, and thus greatly interrupt, if not destroy, that devotion and edification which are the great objects of our attendance on public worship?

Art. 32. *An Inquiry into the Necessity, Justice, and Policy of a Commutation of Tithes.* By Morgan Cove, LL. B. Prebendary of Hereford, and Rector of Eaton-Bishop, Herefordshire. 8vo. pp. 121. 3s. Rivingtons, &c. 1800.

The subject of tithes has of late been much agitated; and it seems to be a prevailing opinion that the state of agriculture, and more especially the new circumstances of Europe, will make some alteration necessary respecting them in this country. How far this opinion is well founded is a matter which requires much deliberation, since the interest and comfort of a most respectable and useful part of the community are concerned. Mr. Cove is a strenuous and able advocate for the present system; and, as we wish that the subject may obtain the most ample consideration, so that nothing may be attempted with rashness, or carried into execution with injustice, we recommend his Inquiry to the attention of the public. He contends that the abolition or commutation of tythes is not necessary, nor just, nor politic:

politic:—that ‘neither the rights of the clergy as titheholders, nor their general conduct in the exercise of those rights, are or have been unfriendly to agricultural pursuits:—that no immediate interest of the land-occupier, nor future prudential interest of the land-proprietor, can sanction an alteration in the present property or form of tithes;’—that even a corn rent in lieu of tithes is liable to many objections (among which he *ingeniously* states ‘the possibility of introducing a different species of bread-corn, or a substitute for bread;’—and that, in short, as an alteration in the property of the clergy may tend to disturb all landed property, it is wise in the state to abstain from all experiments with it.

While, however, Mr. Cove resists all commutation of tithes, he allows the expediency of an act of parliament to remove the whole mass of objected grievances; the substance of which act should be to enable all tithe-holders to lease their tithes, for any term commensurate with the lease of an estate, not exceeding twenty-one years, at a fixed annual rent.—As far as such an act tended to exclude the practice of taking tithes in kind, it would be a sort of commutation; and the farmer, or tenant, would consider the two sums paid to the landlord and to the tithe-owner as forming, together, the whole of his rent: in which view, the demand for tithes could no more operate against improvement, than the demand for rent by the owner of the soil; for it matters not to the farmer, whether he pays a fixed sum for the privilege of occupancy, to one or to two persons.

All this argument certainly is an admission that there are great objections to taking *tithes in kind*. There are also some to which Mr. Cove has not adverted, but which, where the practice obtains, will be felt, and will become matters of complaint.

This pamphlet may be considered as a supplement to Mr. Cove’s *Essay on the Revenues of the Church of England*, mentioned in our xxixth volume, N. S. p. 199.

POETRY, &c.

Art. 33. *Lines on the Death of the late Sir Ralph Abercromby.* By the Author of the Conspiracy of Gowrie: 4to. 1s. Bell, Oxford Street.

Poets who attempt the praise of distinguished men frequently acquire as well as confer immortality; for, when the eulogy is well constructed, the fame of the bard is united with that of the hero, and together they glide down the stream of time. Whether the author of the present tribute to the memory of our illustrious commander in Egypt, who nobly fell in the cause of his country, was actuated by ambition of this kind, it is not for us to decide: but if such were any part of his aim, we shall not endeavour to obstruct it by severity of criticism: rather allowing our respect for the object of his verse to be his shield on the present occasion. Let the following lines speak for themselves;

‘Thee, Veteran, thee, each glistening eye deplores,
Thee, Veteran Chief, bewail our sea-girt shores;
From side to side of this imperial isle
Thy Valour names with melancholy smile;

Borne o'er the wave, Fame, murmuring as she flies,
Thee, ABERCROMBY, thee, records in sighs !'

An account of this author's *Conspiracy of Gowrie* may be seen in our last volume, p. 321.

Art. 34. *Ode to the Memory of Sir Ralph Abercromby, and the Glorious 21st of March, 1801.* By Anthony Todd Thomson. 4to. pp. 15. Edinburgh, Manners and Co. London, Trepass. Mr. Thomson's ode contains much animated poetry, the pleasing vehicle of a variety of striking thoughts, but (like the preceding *Lines*,) very little that particularly applies, either characteristically or historically, to the truly venerable and justly lamented hero whose memory is the professed subject of the performance. It is, however, on the whole, a poem of considerable merit.—It concludes with a 'prophecy' of the happy return of peace ; which, we suppose, the prophet himself little imagined to be *so near* at hand, at the moment when this performance issued from the press,—but a few days before the arrival of the *most welcome preliminaries* !

Art. 35. *The Wedding and Bedding ;* or John Bull and his Bride fast asleep. A Satirical Poem. Containing an History of the Happy Pair, from their Infancy to the present Period. With Reasons for, and Means used, to accomplish their UNION. Also the Matchmakers matched, with their rueful Lamentation for the Loss of the Bride Cake. By T. Canning. 8vo. 2s. Jordan.

It is often found in books as at inns, that the *plenty of good entertainment* figures only on the outside. We suspected that this might have been the case here : but we were agreeably disappointed. Some grave irony, and far from pointless satire, are here levelled against the ex-minister and his measures ; and with Hudibrastic ease the author's sentiments of the union are strongly expressed. The name of *Canning* we suppose to be assumed : but whoever the author be, he unites the power of keen reflection with that of ludicrous representation. The history and portraits of John Bull and Mrs. Erin are well sketched ; and the conduct of *Brass* (Mr. P—tt) through his whole administration is wittily reprobated. The following description of the Catholics, of the Members of the Established Church, and of the Presbyterians in Ireland, is much in the manner of Butler :

' Thus from the common yoke releas'd,
They all their native bias pleas'd ;
Pat sets potatoes, minds his plough,
Rears ducks, and pigs, and keeps a cow ;
And next his whiskey, dearly fosters
His *aves* and his *pater nosters* ;
These (lest the devil should him cozen)
He says, and reckons, by the dozen ;
And, that accounts may ballance even,
A tally always keeps with heaven ;
On herrings makes his Friday dinners,
And thinks all mutton eaters sinners.
Whilst John, the day he'd be most good in,
Would eat the most roast beef and pudding :

He pray'd but little, less he fasted;
 No *next* world wish'd, while *this* world lasted
 But Sandy strove to fix his thumb
 On this world, and the world to come;
 Was both in trade and gospel *conny* *,
 Did much for God, and more for money.†

The promise in the title page, however, is not wholly fulfilled. We have only the 'wedding,' at present; which is not described as a very joyful one:

'The eager guests were now assembl'd,
 The bridegroom doz'd, dame ERIN trembled;
 But BRASS the nuptial rites conducted,
 The bride encourag'd, BULL instructed,
 And made her boy from *Castlereagh*,
 His struggling Mistress *give away*:
 With loathing to the ring she yielded,
 Which, some have said, is Iron gilded:
 The fees of course were not neglected,
 No blessing else could be expected.
 Thus both in one, for aye were blended,
 And with amazement †, all was ended.
 'To spread the news, away Fame scouted,
 Dogs bark'd, and boys and beggars shouted:
 Loud thundering cannons shake the ground,
 Bells ring, drums beat, and trumpets sound.
 'Thus, to the orient funeral pyre,
 Perfum'd and deck'd in gay attire,
 The victim fair is urg'd along,
 Amidst the plaudits of the throng:
 By custom doom'd, she yields her charms
 To her dead husband's putrid arms;
 Aspiring flames involve the pair,
 And Ganges flashes with the glare:
 Shrill cymbals clang, loud shouts arise,
 And she in seeming triumph dies.'

An interlude, in lieu perhaps of the 2d part, but purporting to be a loose prospectus of it, is added.

Art. 36. *The Minstrel Youth*; a Lyrical Romance: with other Poems. By W. Case, jun. 12mo. 1s. Condor. 1801.

A very promising specimen of the young author's poetical taste and talents: we suppose him to be *young*; and if he perseveres in paying his devoirs to the muses, he may probably obtain a considerable degree of their regard and encouragement.—The pieces here submitted to the judgment of the public are various, moral, and not destitute of harmony and pathos. The poem, in three parts, intitled *The Minstrel Youth*, is the most considerable performance, and evinces

* * Knowing.'

† The last word in the ceremony of marriage in the established church.

the

the writer's proficiency in the Romantic lore which so strongly marks the ages of chivalry, and many of the manly old English Ballads.

Art. 37. *Il Luttuoso, ed il Gaudioso; Il Giocoso, ed il Diligente:* Poems on Music, the New Century, Sport, and Care. 12mo. pp. 90. 2s. 6d. Wright, &c.

These rhymes might have given pleasure to the author's friends in private society, but they are scarcely fit for the public eye. The writer has indeed anticipated criticism, and, in his preface, has gently reviewed them himself: but he has still left us something to do, if we were rigorously disposed to exercise our rights. We might begin by objecting to the Italian titles, not because they are Italian and the poems are in English, for which the author has Milton's authority, but for the harshness of two of the four which he has chosen. *Luttuoso* and *Gaudioso* are as unpleasant to an English ear, as any words that can be found in the Italian language. Milton, doubtless, gave his titles in Italian, (which in his time was more cultivated and better known in this country than any other foreign dialect,) because he could express with that language, in one word, an idea for which ours required two: as *Il Penseroso*, the pensive man; *l'Allegro*, the joyous man.

Some prosaic expressions, and indeed whole lines of that character, might be pointed out in every one of these little poems. We should suppose that the first has not been published hastily, because Miss *Brent* is mentioned in it as the favourite Siren of the time, who delighted this country with the strains of *Handel*; and at least 30 years have elapsed since Miss *Brent* flourished:—but she was not so much accustomed to warble the strains of *Handel*, as those of *Dr. Arne*, her master.—To describe this production in one sentence, we shall conclude by observing that it seems to be *dilettante* poetry, rather than that of a scribe by trade.

MISCELLANEOUS.

Art. 38. *Thoughts on Capital Punishment.* By Hugh Wade-Gery, M. A. late Fellow of Emmanuel College, Cambridge. 8vo. 1s. Robinsons.

The author of this little pamphlet is an advocate for the abolition of capital punishment, in all cases except that of murder. This exception he grounds solely on the authority of the divine command, that "whoso sheddeth man's blood, by man shall his blood be shed;" and he maintains that, in no other case, can a legislature assign the punishment of death to the most atrocious crime; because, though the individual possesses power over his liberty and property, he is induced with none over his life; and therefore he can never delegate such a power to the legislator. The other arguments contained in this work are such as have been repeatedly urged: but they are here enforced in strong, correct, and elegant language.

Art. 39. *Suggestions respecting a Plan of National Education, with Conjectures on the probable Consequences of Non-descript-Methodists and Sunday-Schools, in a Letter addressed to his Grace the Archbishop of Canterbury.* By the Rev. William Shaw, B. D.

B.D.F.S.A. and Rector of Chelvy, Somerset. 8vo. 1s. Robinsons. 1801.

The unfortunate dispute between Mrs. H. More, Dr. Crossman, and the Rev. Mr. Bere^{*}, appears to have given rise to this pamphlet. The author is undoubtedly a man of ability and observation; his style is also good, and he professes himself the friend of freedom and liberality of sentiment: but how far this may co-incide with his scheme of *national education*, we do not inquire.—The ‘*Non-descript*’ Methodist is, however, here described, as having no mark so discriminating as ‘a restless anxiety to propagate *Sunday-schools*.’ To permit these to exist, by superintending and taking on themselves the education of the adults, as well as the children of the lower orders of the people, is tolerating (it is said) *imperium in imperio*.—On such considerations, his Grace of Canterbury is requested to introduce a bill in parliament, to establish regular, daily, *parochial schools*.

Art. 40. *A Catalogue and detailed Account of a very valuable and curious Collection of Manuscripts. (Now on Sale) collected in Hindostan, by Samuel Guise, Esq. late Head Surgeon to the General Hospital at Surat; including all those that were procured by Monsieur Anquetil du Perron, relative to the Religion and History of the Parsees, and many which he could not procure.* 4to. 2s. 6d. Bickerstaff. 1800.

To the particulars enumerated in this very curious catalogue, the following advertisement is prefixed:

‘This collection was made at Surat, from the year 1788 till the end of 1795, with great trouble and expence. It is unnecessary to observe, that in any country where the art of printing has not been introduced, books will be multiplied slowly; and, there being no booksellers, or particular scribes, at Surat, the opportunities to purchase manuscripts of any kind, rarely occur; and they are always sold very dear. We learn from Mandelsloe, that the Emperor Ackbar had a library of 24,000 volumes, valued at thirty-two lacs, thirty-one thousand eight hundred and sixty-five crowns; about thirty-four pounds sterling each volume. Among the Sanscrit Manuscripts, the *Mahabarrat* is very valuable: a translation of that work in Persian, made during the reign of the Emperor Ackbar, cost General Carnac a thousand rupees, as the collector of the MSS. in the present Catalogue was informed by that gentleman. It is to be observed, that there are no Pehlavi manuscripts in England besides those in this collection; and, to the best of our information, not more than four or five in Zend.

‘Of this collection, however rich in Arabick and Persian works of merit, the chief value consists in the numerous *Zend* and *Pehlavi* MSS. treating of the antient Religion and History of the *Parsees*, or Disciples of the celebrated Zoroaster, many of which were purchased, at a very considerable expence, from the Widow of *Darab*, who had been in the study of those languages, the Preceptor of *M. Anquetil du*

* We are glad to learn, by the public prints, that this controversy is now terminated.

Perron; and some of the manuscripts are such as this inquisitive Frenchman found it impossible to procure.

'The writings of Zoroaster, which still remain, are all to be found in this collection; they are very curious, and speak of the Creation of the Universe, of the Terrestrial Paradise, and of the Dispersion of Mankind: they contain also an Account of the Origin of Evil, Moral, and Material; and also Predictions, with respect to the latter Times; several Particulars relating to the End of the World, and the Resurrection; some excellent Moral Precepts; and a very extensive Ceremonial Code.'

We are sorry that we had not an earlier opportunity of mentioning so rare a publication as the present: but, as we are not informed that the extraordinary collection, to which it relates, has yet been sold, we are perhaps still in time for the information of those who may have *curiosity* and *ability* sufficient to become purchasers. Those who have the management of public libraries will, probably, be most attentive to the offer here made to the *British* literati.

Art. 41. *The Spirit of the Public Journals.* Being an impartial Selection of the most exquisite Essays and Jeux d'Esprit, principally Prose, that appear in the Newspapers and other Publications. With Explanatory Notes. Vols. III. and IV. 12mo. pp. 396. each. 12s. Boards. Ridgway.

If the age possesses any wit and genius, and if the editor be endowed with any judgment and taste, collections of this kind must be extremely amusing; as they bring together, within the compass of a few pages, the sprightly sallies which have been scattered through the public prints during the course of the respective years. Of the first two volumes of the present work, we hinted our opinion in M. R. vol. xxxi. p. 222, which will also serve for those that are now before us. Many amusing little pieces in prose and verse are here selected; and among others we find, in vol. iv. p. 345, the beautiful poem on *the Passage of the Mountain of St. Gotbard*, by Georgiana, Duchess of Devonshire, said to be here first published complete, and under sanction.

The editor continues to lament the small number of witty articles on what is called the ministerial side; which circumstance, however, he assures his readers, has not arisen from any partiality in his own mind, but from the barrenness of the public journals in this respect; and in order to lessen the appearance of political bias, he has made the contents of the present volumes more miscellaneous than the former. We approve this enlargement of the original plan; and while we express our gratitude for the amusement which this collection has afforded us, we would recommend it to the editor to be careful not to print the same composition twice; (an instance of which occurs in these volumes;) not to be too easily pleased in making his future selections; and to content himself with a thin volume of choice pieces, in preference to a thick one crowded with mediocrity.

If, at the end of each annual selection, a brief chronological table of the principal occurrences of the year were subjoined, the value of the work would be considerably enhanced.

Art. 42. *Kearsley's Traveller's entertaining Guide through Great Britain*; or a Description of the *Great* and principal *Cross* Roads; marking the Distances of Places from London, and from each other: with a concise Topographical History of the Cities, Towns, Chief Villages, Antiquities, Seats, &c. 8vo. 6s. Boards. Kearsley. 1801.

We have had a variety of complements of this kind, which have all respectively met with acceptance in their day: but *this* publication will doubtless be deemed the best, as being the latest, and coming down to the present time. The revolutions of the last fifty years have produced considerable alterations in the general face of the country, and great improvements in particular parts, especially in our large manufacturing and commercial towns; most of which, if not all, are here duly noticed. On these accounts, we cannot but agree with the attentive Compiler when he observes, (in his preface,) that 'those who travel on business, those who visit watering-places, those who ramble into Wales, or who visit the Lakes, or who traverse the less cultivated tracts of the North, will find their time agreeably beguiled by making this volume the companion of their Travels.'

A Map of England and Wales is prefixed to this work; which should have been announced to our readers in time for their summer tours, but accident has delayed the article.

Art. 43. *Observations on a late Publication*, intitled a Treatise on the Police of the Metropolis, by P. Colquhoun, Esq. By a Citizen of London: but no Magistrate. 8vo. 2s. 6d. Symonds.

The author of the Treatise on the Police of the Metropolis * is here accused of having magnified irregularities into offences deserving severe punishment; of having created unnecessary alarm in the minds of the timid, by the public exhibition and classification of crimes, and thus rendering men more suspicious of each other; of endeavouring to increase the discretionary powers of Magistrates; of promulgating maxims which are deficient in consideration for the distressed part of the community; and of using hard expressions, such as disapproving "the false mercy of juries."—We cannot enter into an examination of the justice or injustice of these charges: but we may observe that the present author has not been sparing in his attack, which he has conducted with a degree of rough humour, and sometimes with close reasoning.

To the complaints of the indulgences of the poor, this writer opposes the luxuriousness of the wealthy; which appears to be in a full proportion to the difference of their circumstances. The subject, however, to which he has given most attention, is the danger which he apprehends for the chartered rights of the city of London, from the endeavour to introduce there the authority of the Police Magistrates. 'No one,' he says, 'can doubt that great and numerous offences abound in this great city, because these are the natural consequences of an increased population and an enlarged commerce: but instead of considering these evils in the abstract as prodigiously enormous, it is necessary for us to view them in connec-

* See M. Rev. vol. xx. N. S. p. 408. and vol. xxxii. p. 349.

tion with the *magnitude of the place* where they exist, and as formed out of that great spring in which we so much boast.' As the government of the city is now established, he thinks its magistrates are most likely to be men of uncorrupt hands and unbiassed minds.— 'There are but few places where judicial powers are executed with equal integrity or more ability; oftentimes acquired by a long local residence: their advanced situation, and the great trust reposed in them, arising from their respectability, and the esteem in which they are held by their fellow-citizens.'

We participate in this author's respect for the rights of the city of London; and we should be equally concerned to see its independence abridged. What other part of the world can produce so large and busy a collection of people, within so small a compass, governed so much to their own satisfaction, and living in so regular, peaceable, and contented a manner?

SINGLE SERMONS.

Art. 44. *The Heinousness of the Sin of Wilful Murder.* Preached in the Parish Churches of Staple and Bickenhall, Somerset, 7th April 1799, on Occasion of the Execution of Richard Williams for the Murder of Thomas Laver. By the Rev. Charles Toogood. 8vo. 1s. Johnson.

The appointed ministers of religion, if they follow the example of Christ, will adapt their addresses to circumstances; and when any peculiarly awful and striking event occurs, they must feel it to be their duty to *speaking a word in season*. Under this impression, Mr. Toogood has no doubt acted on the solemn occasion of this discourse; and, after the evident pains which he has taken in its composition, he is intitled to the thanks of the neighbourhood in which the murder was committed, and to those of the public. He has treated the subject in a very clear, judicious, and impressive manner; and though murder is a crime against which *Christian* congregations need not, in general, to be cautioned, there are few who may not derive advantage from Mr. T.'s discussion; since it evinces the importance of the fear of God, and of self-government, in restraining us from a course of sin, which may terminate in the most heinous offences. *Nemo repente fuit turpissimus.*

At the conclusion, Mr. T. has introduced, with some address, a new comment on the prayer in the Litany against sudden death:

'Let us therefore be continually upon our guard against the snares of sin. Let the reflections, which I have suggested, be frequently in our minds, and suffered to have their proper influence upon our conduct, and then the day of our departure out of this world will never "come upon us unawares." Nevertheless, as death is naturally terrible, and this life is the time which God hath granted us to prepare by his grace for a better, we may very rationally, and let us now devoutly, beseech him, in the words of our Church, to deliver us, as from "lightning and tempest; from plague, pestilence, and famine;" so likewise "from Murder;" from that untimely and sudden death, when, struggling to no purpose, convulsed and agonizing under the knife of some merciless ruffian, we are not only cut off

off in a moment from all the blessings of *this* world, but from the time and means also of making preparation for *another*; cut off, perhaps, while our repentance is yet imperfect, and in our most unthinking hour, and thus sent to our last awful account, with our sins fresh and heavy upon us. A most affecting circumstance, and beyond expression terrible!

An Appendix contains an affecting account of the murder of the unfortunate Thomas Laver; a labouring man, who was known to have laudably saved a little store of money as a provision for old age, which, fearing to trust any one with it, he generally carried in his pocket.—Some reflections are cast on the Jury for their acquittal of Williams's accomplice *James Podger*; who appears, by the declaration of Williams, at the gallows, to have been fully as deep in the horrid guilt as himself. We recommend to all jurymen this lesson from a sensible and conscientious clergyman.

Art. 45. *A Practical Sermon on the Nature of Public Worship.* By Thomas Sanders, A. B. of Christ Church, Oxford. 8vo. 1s. Rivingtons.

After having inculcated the necessity of spiritual devotion, from John iv. 24. this author proceeds to a consideration of the component parts of the Church service; to which he exhorts the members of the national communion to attend with seriousness and piety. The Litany is most warmly recommended; and even the damnatory clauses of the Athanasian Creed are said to be authorized by the express language of Christ. We make no remark on this hackneyed subject: but, if, as Mr. S. observes in p. 18. the Apostle's Creed contains 'an entire summary of the Christian Faith,' the Athanasian Creed, in as much as it differs from it, is unnecessary, if not suspicious. The pronouncement of the *Absolution* by the minister is justified, on the ground that God has given to the sacred order *the ministry of reconciliation*: but Mr. S. should have remembered that *the ministry of reconciliation*, of which Paul speaks, does not consist in undertaking to reconcile sinners to God, but in exhorting them to be reconciled unto God.—We join with Mr. S. in his praise of the *General Thanksgiving*, which is unquestionably the best devotional composition in the whole Liturgy.

Many judicious remarks occur in this discourse; which, as the production of a young man in Deacon's orders, must be considered as a sure indication of ability; and we trust that this circumstance, in addition to an amiable character, will insure him all the patronage which he desires.

Art. 46. *Preached at the Octagon Chapel in Norwich, Aug. 13, 1801, for the Benefit of the Norfolk and Norwich Hospital.* By Pendlebury Houghton. 8vo. 1s. Johnson, &c.

This discourse is well adapted to the occasion on which it was delivered from the pulpit by the rev. author; who seems to have been animated by the true spirit of benevolence and Christian charity towards those who, of all human beings, stand in greatest need of such assistance. Most of his readers, we have no doubt, will feel themselves particularly obliged to him for his insertion (in a note,) of the interesting—

interesting story * of *Fabiola*, a noble Roman lady, who lived in the 4th century; and who was the first founder of an *Infirmiry*, for the benefit of those who were at once affected by disease and poverty.—The particulars will probably be new, as well as *edifying*, to many; and indeed such instances of human benevolence have seldom been known in the world.

Art. 47. *The Name of the Lord, great among the Gentiles.* By John Evans, A. M. Master of a Seminary for a limited number of Pupils, Pullin's-row, Islington. 8vo. 6d. Symonds. 1801.

This discourse is said to have been preached at the re-opening of the General-baptist Meeting-house in Deptford, when it had been shut up for repairs. After other reflections, the fulfilment of Malachi's prediction, chap. i. ver. 11. is farther illustrated by the early introduction of Christianity to Great Britain, together with the marvellous and happy alteration which it effected. How early the light of heavenly truth reached this isle, it is not now easy to determine: but that the blessing has been for many ages enjoyed is most certain; and that, when policy and priestcraft had greatly obscured its radiance, it has been in a great degree revived and relumed, is a subject of joy and gratitude. Happy are those who learn and practise the lessons of resignation and contentment, which this divine revelation inculcates; and which are said to have been displayed in the conduct of an Italian bishop, with some account of whom this sermon is concluded.

CORRESPONDENCE.

The letter from our old Correspondent at Fochabers was duly received, and we are perfectly disposed to take it (as he requests) 'in good part.' It certainly is alike our duty and our wish to adapt the pages of the Monthly Review to the taste and pursuits of its different readers; and we have been induced to believe, from the reception with which the public has so long honoured us, that our endeavours have not been unsuccessful. We shall always listen, however, with readiness and attention, to the suggestions of so respectable a Correspondent as Dr. G.; though he will allow us to add that we do not forget the well-known fable of *the Old Man, his Son, and the Ass*.

Our friend *Longinus* seems to have been himself somewhat under the influence of that terrible disease, the *cacoethes scribendi*, the effect of which on others he laments. The old fable, above mentioned, may be recommended to this gentleman's consideration. In matters merely of taste and opinion, every one must judge for himself.

B×B and B×W are received, and will in course meet with due attention, when opportunity occurs.

Mr. Tate's and Mr. Howe's letters are just arrived.

✂ In the last APPENDIX, p. 459. l. 26, 27. for 'and a presented,' r. and be presented.—P. 524. l. 5. put a semicolon after 'was.'—P. 535. l. 17. for '(Bistonry),' r. (Bistoury).—P. 536. l. 14. for 'Wooly and,' read, *Wool, and*.

* Recorded by *Jerom*, who styles her the glory of the Christians.



THE
MONTHLY REVIEW,
For NOVEMBER, 1801.

ART. I. *Essays and Notes on Husbandry and Rural Affairs*, By J. B. Bordley, 8vo. pp. 600. Printed at Philadelphia. Imported by Mawman, London. Price 10s. 6d. Boards.

THOUGH perfection be not attainable in any earthly pursuit, yet a communication of fortunate discoveries and of successful efforts, in every department of science and industry, certainly tends to a gradual approximation towards this desirable point. Even in agriculture, in which the practices of one country will not all correspond with the circumstances of another, something may be learnt by comparing different modes and processes. English and American farmers are in very dissimilar situations; yet it will be advantageous to them, in some respects, to *tear a leaf out of each other's book*. A laudable curiosity at least is indulged, when practical information is not to be obtained; and the philosophic mind is gratified by contemplating the manner in which soil, climate, and local circumstances diversify the same profession.

These remarks appear to be applicable to the English reader of the work before us; in which the object of the author is not either to instruct or to amuse the European, but to furnish a mass of useful information for his countrymen, the American farmers. He thus speaks of himself:

‘On the turn of middle age and whilst gradually quitting public employments, the author sat down on a farm in Maryland, and became enthusiastically fond of husbandry. Farmers in the neighbourhood informed him of their modes of practice; but they taught him nothing of the principles of the art. Whilst they knew how to practise in the manner common to the country, he knew neither principles nor practice; but began however with observing their practices, which he continued to imitate; until gaining information from a number of instructive experiments, he was encouraged to deviate from some of them; and became more and more assured that great improvements might be made by professed farmers, in this first of all employments, if they could be brought to relinquish the worst of their habits.’

Mr. Bordley began by writing little essays, and dispersing them among his friends; and these compositions, with others yet remaining in manuscript, form the present work. If, he says, 'fortunately it should induce improvements and better attentions for *assuring* competency with domestic and social comforts, his first wish will be accomplished.'

The essays treat on the following subjects:

'Systems and Rotations—Grass-rotations—Grain-rotations—Design for a Grain Farm—Grain and Meadow-rotation—Farm-yard—Clover—Wheat on Clover—Beans—Maize and Wheat-culture—Hemp—Farm-yard Manure—Barns—Cattle Stalls—Cattle Pastured and Soiled; Kept and Fattened—Observations on Cattle, Sheep, and Hogs—Maize and Potatoes as Fallow-Crops and Fattening Materials—Fences—Treading Wheat—Method of Registering Experiments—Principles of Vegetation—Necessaries best Product of Land—Family Salt—Rice—Country Habitations—Ice-Houses—Intimations on new Sources of Trade, &c.—Potato-Spirit and Beer—Diet in Rural Economy—Gypsum Manure—State Society of Agriculture—Notes and Intimations.'

The first paper commences with an account of rotations of grass crops, occasioned by the application of Mr. Rigal, (a gentleman from Manheim in Germany, who had settled on a small farm of 56 acres, near Philadelphia) to Mr. B., to know in what way he could best cultivate his land. As labour is scarce in America, and hirelings are managed with difficulty, even by the most experienced husbandman, Mr. R. was advised not to cultivate grain, but to confine his attention to grass crops. He was directed to permit no horse, ox, cow, or other beast, to graze on pasture, but to keep them in stables throughout the year*. Hence there will be little need of division fences; and the fields, having only one general inclosing fence, will exhibit a beautiful *unit* of grass, only dotted here and there with clumps of trees: which are recommended to be the locust, sugar-maple, black-mulberry, black-walnut, dog-wood, and sassafras, none of which materially injure the grass. The propriety of a grove of sugar-maples, to the extent of two or three acres, is particularly suggested; because this grove will not only afford a comfortable sheltered walk, but will yield sugar for family uses, to the amount of 200 lbs. per acre.—The rotations here advised consist of changes of rye, clover, and timothy-grass; which are illustrated by particular tables.—This mode of practice may suggest no useful hints to the English Farmer: but, in order to prevent him from regretting that *his* groves do not produce maple-sugar, maple-wine, nor the spirit of sugar, *Rum*, we

* This will appear to our farmers to be singular advice.

may transcribe (from a subsequent note) the remark on the superior excellence of *Beer*; which is said to be 'the most wholesome of all made drinks, the chief in all countries where robust health is most conspicuous. It keeps labourers in steady good heart, without producing that irregularity which is commonly the effect of Rum.' At p. 395, also, Mr. B. terms it 'an article conducive to sobriety, health, vigor, and contentment.'

Though the plan of an American Farm-yard, &c. may afford rather matter of amusement than ground for practice in this country, yet some hints may be collected from it, and turned to advantage by intelligent persons. We therefore transcribe the sketch of a design of this kind:

‘ A FARM YARD.

‘ *Homestead and Buildings.*

‘ It is an especial object in this design that the whole yard, and its buildings, should be in view from the mansion; and that they be constructed at a proper distance, neither too near nor too far from the mansion. The food should be near to the housed live stock, for readily distributing it. The yard ought to be compact; and the doors of the buildings, and the gates of the yard, seen from the mansion..

‘ The *homestead* includes this yard; together with its stackyard, the garden, nursery, orchard, and some acres for occasional use: such as the letting mares, or sick beasts run in, at liberty. There must be

Mansion.

Kitchen, Oven, and Ash-hole.

Poultry-house, and yard.

Wood-yard.

Laboratory (Labóration)

Milk-house.

Ice-house.

Pigeon-house.

Cloacas.

Family-yard.

Pump.

Watering troughs.

Sow and Pig sties.

Cow-house.

Boiling-house.

Hogs.

Stercories.

Barn.

Sheep-house, and yard.

Chaise-house and stable.

Waggon and cart-house.

Implements of husbandry, house.

Workshop.

Herdsmen's hovel.

Granary.

Stable, for farm.

Area of Bridge and vaults.

Bees.

Treading-floor.

Straw ricks.

Hay ricks.

Root pits.

A plate is given at the end of the work, to illustrate these particulars; from which it is evident that a Trans-Atlantic farmer must produce as many necessaries as it is possible for him to furnish within himself, and must depend little on foreign supply. The *Laboratory* is with him a necessary appendage. In this house, meat is cut up, salted, and smoked; lard and tallow are dried; candles and soap are made; and washing,

washing, ironing, spinning, carding, dying, brewing, and purifying salt, &c. are performed.

The *Ice-house* is recommended to be near the milk-house, in order that ice may be at hand to harden the butter as it is taken from the churn. Ice has been discovered to be of singular utility in preserving Newcastle salmon for the London market; and, as ice-houses are very cheaply constructed, may it not be of service, on English Farms, to have buildings of this kind; not merely for the purpose of hardening butter, but for that of keeping fresh meat in summer? *

* Butter (it is here remarked) is the better for having never been in water, or at all wetted, even in clearing it from butter-milk. If with *slow motion* for mixing it with very *pure fine salt*, and slowly pressing out the butter-milk, the butter be never touched with water, but instead of cooling it with water, ice be placed round and under it, so however as not to wet it, and all this be done rather on a cold marble table, the butter may be expected to be greatly superior, in *colour*, in *closeness*, and in *flavor*. But it ought not to be beat, nor even pressed or squeezed with a *quick motion*. Every motion ought to be *slow*; in making butter. For getting out the butter-milk, sprinkle it with very fine salt, and after gently mixing it in, let it stand a while before the fluid is to be discharged. It is said, there is no making fine paste, but on *marble tables*; which are *cleaner*, *sweeter*, and *cooler* than any wooden tables; and that French pastry cooks use *marble*. The reasons are as strong for nice *butter makers* using marble. A slab of *polished marble*, on a stout oaken frame, may be first made cold with ice; and a drawer close under the slab, filled with ice, would continue the cold, whilst the butter is cleansing.*

To the very antient practice of *treading out corn*, mentioned in Scripture, the Americans are very partial. Mr. Bordley thus delivers his opinion on this subject, under the article *Treading-floor*:

* Though but *six* to eight horses should tread on it, yet it ought not to be of a less diameter than 80 or 90 feet. But the track and bed of wheat is narrowed to 12 or 15 feet. I was long and greatly prejudiced against *treading* wheat. But experiencing the advantages of getting out the crops with *speed*, and very *clean* when on a permanent well preserved floor, with horses gently trotted in ranks, distant and airy each rank from the others, the preference in my opinion is in favour of treading, over the most expert thrashing with flails. So much so that, considering the greater opportunities of

* May not some speculating tradesman avail himself of this hint, to supply the London market with exquisitely fresh butter in the summer months, by packing it in ice? Should this be the case, we expect that our breakfast table shall be supplied *gratis*, for having suggested the thought. Rev.

puffering.

pillering, and lengthy troublesomeness of thrashers, I would prefer treading to having my large crops thrashed for nothing.'

He farther observes,

'To hire thrashers or put my labourers to thrash it out with flails, the time spent would give abundant opportunity for thieving, which is avoided by the speedy method of treading, when in about a fortnight three thousand bushels may be secured, instead of near a hundred days that flails would require.'

Clover is strongly recommended as an ameliorating crop; and here the author's remarks apply as well to Europe as to America. Clover, he says, 'is so essential that without it the soil, the cattle, and the corn-crops would greatly suffer. Its power of amelioration is not very inferior to that by dung. In some respects it is preferable. With dung, innumerable seeds of weeds are carried on and sown on the fields: not so clover, when the seed has been properly cleaned. Clover is the best preparative for a crop of wheat. Dung inclines wheat to run more into straw than full grain. Wheat on clover has the best grain and the fullest crop.'—We have often seen these observations verified in our own country.

An idea is suggested respecting a mode of gathering and cleaning clover-seed, which may merit general attention: 'The heads of clover are ripped off, by a simple machine moved by a horse, at the rate of 5 acres of them in a day. The heads are carried to an oil mill, having two stones rolled in the manner of a tanner's bark-stones, which separates from the haulm five bushels a day.'

The essay on *Hemp* contains the following remarks, by which it will be seen, that Mr. B. prefers the culture of this crop to that of tobacco:

'The extensive usefulness of hemp, the little interference of its culture with the other work of farmers in America; and when water-rotted, the ease with which it is prepared for rope, as well as the general certainty of the crop with a good price, led me to admire it in preference to other uncommon articles of crop.'—

'If the ground be good and well prepared, no crop is more certain than hemp, sowed in time, and when the soil is moist. But, how uncertain is the tobacco crop! Failure of plants from frost, drought, or fly; want of seasonable weather for planting; destruction by the ground-worm, web-worm, horn-worm; buttoning low, for want of rain; curling or frenching, from too much rain; house-burning or finking whilst curing; frost before housed; heating in bulk or in the hogshed; inspection, culling, &c. Cultivating tobacco cleans, but exposes soil to exhalation and washing away. It is only about a month that it shelters the ground: but hemp shades it from May till about the first of August; and from early August it would be advantageously sheltered with a growth of buckwheat, till this blo-

soms; and then during a temperate state of heat, it is plowed in as a manure.—

‘A planter gaining 20 hogsheads of tobacco from 20 acres of ground, value 800 dollars, might expect 12000 or 16000-lbs. of hemp from the same ground, value 1000 or 1200 dollars. But, if the income from the hemp should be a fourth less than from the tobacco crop, yet I would, on several accounts, prefer the hemp culture.’

It may amuse our agriculturists to read a description of a Pennsylvanian barn; and they may speculate on the hint which is annexed respecting Manure:

‘Farmers in Pennsylvania have a commendable spirit for building good barns, which are mostly of stone. On the ground floor are stalls in which their horses and oxen are fed with hay, cut-straw, and rye-meal; but not always their other beasts. Roots are seldom given to their live-stock, and are too little thought of. The second floor, with the roof, contains their sheaves of grain, which are thrashed on this floor. A part of their hay is also here stored. Loaded carts and waggons are driven in, on this second floor; with which the surface of the earth is there level; or else a bridge is built up to it, for supplying the want of height in the bank, the wall of one end of the house being built close to the bank of a hill cut down. For giving room to turn waggons within the house, it is built thirty-six to forty feet wide; and the length is given that may be requisite to the design or size of the farm. But if the waggon is driven directly into the barn, it may be as directly drawn back without turning it—a great saving of room; and the house need not be so wide as for the sake of turning waggons in it. If waggons carry more to the barn at a time, yet carts are brisker: their loads are shot down in an instant, and they turn short. Waggons are tediously unloaded.

‘I have seen a barn, in Chester county, Pennsylvania, which had a cellar under a floor of planks on joists, on which horses and oxen stood; and their dung was daily shovelled into the cellar. The farmer said, this dung is the better for being thus kept *dry*: but, may it not be there *too dry*? Dung drowned with water must be much injured. But if a large mass of dung receives no more water than what falls on its surface from the clouds, and is well sheltered from the sun, is it then injured? Is it better or worse for being rotten before it is applied to the ground as a manure? If first rotted, it will spread and mix with the soil more perfectly. If but partly rotted, and then spread and plowed into the ground, instantly as it is carted out, will it not be stronger—more powerful in opening and enriching the soil? If there finishes its heat and fermentation, which precede and bring forward rottenness, whilst it is in the ground: provided its lying too thinly dispersed or scattered in the ground is not against its fermenting.’

Of the advantages of *Soiling Cattle*, in preference to pasturing them, much is said; and the objection that it creates peculiar labour gives the author an occasion for declaiming against the dissipation of the American Farmer.

'In many parts of America (he says) are idle improvident people, masters of farms, who spend their time in taverns or other places of wasteful amusement: any where rather than at home. These haunts are at the expense of their *domestic* happiness. Sooner or later they bring on them debts, wants and grating claims of creditors. Such a people can never be brought to soil cattle, or at all improve their farms. Where is solid comfort to be found if not at home? The meanness, the selfishness and the folly of these *husbands, fathers, or masters*, are conspicuous, degrading and shameful; who, regardless of *wife, child, and dependents* claiming their protection, their affections and their attentions, and even regardless of the true interests of their precious selves, fly from their own happiness in the moment when they mount their horses and hurry to the tavern, the race, nine-pins, billiards, excess upon excess of toddy, and the most nonsensical and idle chat, accompanied with exclamations and roarings, brutal and foreign to common sense and manners as the mind of wisdom can conceive of depraved man. Had these men, so deficient in character, been trained but a few years among the orderly, thoughtful good farmers of some neighbouring district, they would have learnt valuable lessons for conducting their farms, themselves, and their domestic affairs, greatly to their comfort and advantage, and to the comfort due to their families and dependents; to whom they owe more than they are accustomed to feel for them. There are on the other hand, those who with industry aim at providing for their families, but it is not with an honest mind and fairness of reputation. The strength of these is in low cunning. If indeed they wish to be perfect in that detestable of all qualities, *country-cunning*, they need not go far from home; unless for the sake of embellishing the satanical talent with some variety. They might then go among the thoughtless class of people in neighbourhoods distinguished for more of this base quality than of provident industry, fairness and honest candour.'

On the subject of *Cattle*, Mr. B. very sensibly remarks:

'Farmers are imposed on by butchers; who by praises prevail on them to prefer the breeds having large bones, and that are deep fore-quartered heavy looking beasts; whose fore quarters outweigh their hind quarters, with the aid of their massy scimitar-like ribs. Why do butchers recommend this beast of bone? Why do farmers comply with their subtle recommendation? Is it because their appearance is agreeable to the farmer's passion for what is *big*? The choicest beef is on beasts having small bones. The Bakewell cattle and sheep have not the heavy appearances of the clumsy, big boned, and flat-sided beasts preferred by retailers of meat: but they are greatly superior in their meat, and in cheap feeding.'

'The first great error in improvers of live-stock, in America, is in their passion for the *largest kinds*. The *largest* and the *smallest breeds* are the very worst; and ought to be avoided in cattle, and generally in all animals. The huge big boned dray-horse, what is he on a farm? the scimitar-ribbed, flat-sided lubberly big-legged cattle, what are they other than expensive masses of unimportant

bone, with an inferior portion of coarse meat deeply obtained in the feeding.'

Respecting *Hogs*, as well as in *Horned Cattle*, Mr. B. is not an advocate for immense carcasses: but his countrymen do not all agree with him; and they allow the qualities of their beasts to have a preponderating influence even in political matters:

'It is said by farmers in Pennsylvania, that lumps of fat of the coarse flabby meat hogs soonest cloy labourers. This may continue to be an irresistible motive with some classes of folks; when to others it will be disgusting and contemptible. Yet if we can oppose the 715lb. hog by one of 716, though it should be a mass of inferior meat, we shall have a something to give us consequence—the biggest hog! At a Nisi Prius court, in Maryland, a person was introduced to me, whose horse had lately won a race. This victory, as I was told, recommended him, though not before thought of, as being qualified to represent the people in their legislature. An election soon followed; and the horse—if you please his influence—carried the election for his master, all hollow. So might 716 of even the coarsest flabby pork succeed against 715 of better meat. Quality with some country people is unimportant.'

Who could imagine that apprehensions of a scarcity of timber, and even of fire-wood, already so affect the mind of the American husbandman, as to induce him to turn his thoughts towards obtaining permanent live fences instead of those of wood? Mr. B. would have a monument erected to the memory of the man who, on the main road near Newcastle, set a pattern to his countrymen, of an excellent *thorn-hedge fence*.

From the author's essay on *the Principles of Vegetation*, we must content ourselves with two short extracts; though the whole is not unworthy of perusal. In his remarks on Manure, he says:

'Manure promotes the growth of plants, by its fermentation and warmth opening the soil for readily admitting humidity from the air with its nutritious contents; and for facilitating the extension of the tender shoots of roots: or by attracting moisture with its combinations from the earth and atmosphere: or by its depositing matter, that if not of itself nutritious to plants, at least promotes the access of such as is nutritious to it. It is said ground is sometimes exhausted by a stimulus from manures. The plant is a more likely subject of stimulation, as having life; and a stimulus to the plant may be a mean of promoting its growth. It also is said, lime exhausts land by its stimulus. It indeed has injured ground when applied in too great quantities; which tends to reduce soil, in some degree, to a mortar: and the caustic quality of lime when applied immoderately may, so will salt, destroy plants, and also a part of their nutrition deposited in the soil. But in fact, it is nearly altogether repetitions of exhausting crops taken from the ground which effect the mischief. The farmer gives once, and takes for ever. If
lime

Lime exhausts ground by destroying the nutrition deposited there, it must be without having promoted any growth in the plants. The injury done by lime, is said to be from stimulating the ground, and with a kind of violence forcing it to yield great crops; whereby the soil is exhausted: and indeed at length it is exhausted—by the crops—not by the manure. It is better to give the ground a moderate portion of lime at a time, and apply it more frequently.’—

‘Plants receiving a large portion of their nourishment immediately from the air, rather fertilize than impoverish soil, where they are not carried off from the ground, or suffered to run to seed. There are strong marks of plants meliorating ground by their leaves and other offal dropt, and probably from their perspiration; especially of the pulse kind. Grain and all seeds rob the earth more than bulbous or tap rooted fruit does.’

In the subsequent essay, Mr. B. pronounces *Corn* to be the best produce of land, preferring it to *Silk* and *Wine*. He quotes, in justification of his opinion, the authority of Mr. Hume, who ‘reckoned it bad policy in Britain to obstruct the use of French wines; when they ought rather to be encouraged in the application of their *labour in making more wines*, by the free use of them in England; because each new acre of vineyard planted in France, for supplying Britain with wine, would make it requisite for the French to take the produce of a British acre sown in wheat, in order to subsist themselves; “and it is evident, he adds, we have thereby got the command of the better commodity.”

The chief articles of American export are thus enumerated:

‘Probably, the chief export of produce in the maritime country between Connecticut and James River, will be *flour*: of South Carolina, Georgia, and the Floridas, *rice*: North Carolina, *naval stores* and *maize*: Massachusetts and other parts of New England, *fish*, *cattle*, and *horses*: Mississippi, *lumber*, *iron*, *hemp*; in ships built there, and never returning are sold abroad.’

Bay-salt is recommended by Mr. B. for family purposes, in preference to *blown* or boiled salt, such as is in common use with us; and he assigns these reasons:—that bay-salt has more of the spirit of salt which is so essential for keeping provisions, gives an agreeable flavour, and is more weighty in the bushel. The following hint also merits the attention of all housewives; viz. to refine and dry salt to a powder, before it be used to preserve meat;

‘When salt is applied in a *powder*, it instantly strikes into the meat, effects its purpose, and goes further than if it was coarse. Meat ought to be *struck* with *powdered* salt, in the moment when it becomes cool; and not left as is common, for hours longer even in warm weather. Tendency to putrefaction soon commences; and long before it is discernible. Salting should precede this tendency,
and

and so prevent it; for salt cannot so effectually *stop* putrefaction, as it can *prevent* its commencement.'

We must pass over Mr. Bordley's discussions respecting *Rice*, *Country habitations*, and *Ice-houses*; with his *Intimations* on Manufactures, the Fruits of Agriculture, and on New Sources of Trade, interfering with Products of the United States in Foreign Markets. The subsequent essays, also, on *Potatoc-Spirit and Beer*, and on *Diet in Rural Economy*, we shall omit to notice, because they are for the most part composed from British publications.

The author's general cautions in regard to Country Cookery (p. 415) are excellent:

'Soups are never to be filled up or have even a drop of water, hot nor cold, added; and are never to boil briskly. They are to be long, long over the fire, *simmering* rather than boiling. And all soups having roots or herbs, are to have the meat laid on the bottom of the pan, with a good lump of butter. The herbs and roots being cut small are laid on the meat. It is then *covered close* and set on a *very slow fire*. This draws out all the virtue of the roots and herbs, and turns out a good *gravy*, with a *fine flavour*, from what it would be if the water was put in at first. When the gravy is almost dried up, *then* fill the pan with water; and when it begins to boil, *take off the fat*.—Never *boil* fish; but only *simmer*, till enough.—*Beef* quick boiled, is thereby hardened: *simmer* or *slow boil* it, in not too much water.—Veal and poultry are to be dusted with flour, and put into the kettle in *cold water*. Cover and boil *slow as possible*, skimming the water clean. It is the worst of faults, to boil any meat *fast*.—In baking pies, a *quick oven well closed*, prevents falling of the crust.'

The next essay, on *Gypsum*, consists of a variety of questions addressed to several American farmers, with their answers in favour of gypsum as a manure.

A proposal was made to the Senate and House of Representatives of Pennsylvania, for incorporating, by an act of the Legislature, a State Agricultural Society; the outlines of which Mr. B. has detailed: but the application, we are informed, was rejected by husbandmen, who were principally to be benefited by the Institution.

In the concluding essay, intitled *Notes and Intimations*, we find various receipts and memoranda respecting pickling and drying beef, making bread, biscuit, and vinegar, curing fish in the sun, salting and curing herrings, making candles, distilling, making and potting butter, &c. &c. &c. which must be of great use in the families of American farmers, and assist them in the profitable management of their rural affairs.

A section in this essay is devoted to the subject of *first impressions*; in which is maintained the importance of the earliest attention

attention to children, in order to assure to them 'the virtues with happy manners;'—and another section treats on *the Improvement of the Mind for Rural Life*, with which we shall finish our extracts :

"Of scientific pursuits, the most liberal, the most honorable, the happiest, and what probably will be the most successful employment for a man in easy circumstances, (particularly in country life,) is the *study of nature*, including natural history and natural philosophy ; and therefore to this important object a principal attention should be given in educating youth who have the means of applying to these instructive and comfortable pursuits, when it may be without interfering with the means necessary to his support. Every man finds vacant moments from his ordinary business, which cannot be better filled than by such attentions as lead to the improvement of his understanding and elevate his mind to admire, more and more, the astonishing works of the Creator ; and thus is real religion befriended.

"All the arts, from whence is derived all that tends to the security and comfort of mankind, depend upon the knowledge of the *powers of nature* wherewith we become conversant ; and the only possible way of assuring and increasing the conveniencies and comforts of life, of guarding against inconveniencies and vexations, to which all are subject, and of enlarging the powers of man, is through a further acquaintance with the powers of nature!"—From Doctor Priestley, a very little altered. Some instruction in geometry and mechanics would also be advantageous in country life.

'Farmers who do not lay the hand to the plow, often want they know not what : time hangs heavy on them : they feel dissatisfied, restless : a void surrounds them. Employment of any sort would give them relief. But they mount the horse, and leave their family and the inviting calls of an improvable landed estate or farm, to seek amusement in riding to and fro ; sometimes unwarily popping into taverns. But though time is thus passed away, they gain no solid or permanent satisfaction, much less any improvement of the mind : and to be sure the farm is not improved ; nor its work well done. Were these masters of farms fortunately led by their parents to taste the sweets of such an education as Dr. Priestley recommends, the *study of nature*, they would never want soothing and nourishing food to the mind ; and from their being employed in inquiries concerning the wonderful works of the *Supreme Being*, a sound and rational piety would be increased and confirmed in them. The book of nature far surpasses books of clumsy art ; whilst the wordy works of misled and misleading instructors convey no profitable knowledge, and are insignificant to common sense, and to good minds wishing to be impressed with the knowledge of plain truths, and improved in whatever is amiable and promotive of good. The comforts held out by the gospel of *Christ*, confirm the hope derived from contemplations on nature : and there is a perfect agreement between the pure principles of the gospel, and the laws of nature.'

While

While there can be no doubt that this work will be an acceptable present to the author's countrymen, we have as little hesitation in saying that it will procure reputation for him in Europe. It evinces, indeed, that Mr. Bordley is a man of sound judgment, as well as of considerable reading and experience. Convinced of the superior importance of agriculture to the United States, compared with manufactures and commerce, he urges the Americans to pursue the former in preference to the latter, in spite of all the splendid illusions which may be presented to the eye and to the imagination. His advice is justified by history, but states will never regard it while they are infatuated by the love of riches. Commerce feeds the passions, and agriculture is too tame a pursuit for dissipated people.

ART. II. *The Rural Philosopher*; or, French Georgics. A Didactic Poem. Translated from the Original of the Abbé Delille; intitled *L'Homme des Champs*. By John Maunde. Crown 8vo. 6s. Boards. Kearsley. 1801.

THE difficulty of translating poetry has always been acknowledged; yet this concession has not rendered criticism less rigid. Mediocrity in an original writer is not more insupportable than in a translator; and a feeble copy of a fine picture, or of a beautiful poem, is equally contemned. Nearly all our best translators and imitators have been great originals: as, for instances, Dryden, Pope, and Rowe. When passages occur which the different idiom of the two languages makes it impossible to render closely, or even intelligibly, native genius is required to supply equivalents; and, seizing the *spirit* of the passage, we should throw aside the *words*, and express the *idea* as a thought of our own,

As many parts of the production before us have been either copied or imitated from our own poets, it is difficult to transfuse them again into English, to the satisfaction of those who have often contemplated them in their pristine state; and however well a translator may have performed his task, the same allowance should be made for evaporation, as in pouring liquors out of one vessel into another. Indulgence in such cases is claimed by Mr. Maunde, and, we think, with reason.

In the translation of the author's preface, we were rather alarmed in the first period at seeing *Monsieur l'Abbé* rendered *Mr. the Abbé*, which is not English: but this is a slight error, which we should have passed over if we had found any thing more important to point out. We observed, however, only a few

few other Gallicisms; as in p. xxv. 'the *lecture* of the *Georgics*,' for *the perusal*; p. xxviii. the word *people* used with a verb in the singular number; p. xxxi. 'a translation *given*,' for performed, or executed; &c.

As the plan of this elegant poem has already been detailed in our analysis of the original *, we have now only to consider the translation; and on this point we must inform our readers that the numbers are, in general, flowing; that the poet's thoughts are not often inaccurately rendered; and that, though the elegance of expression cannot be expected to equal that of a bard so renowned for harmony of composition, yet this version will convey to the English reader many of his beauties, and a satisfactory general idea of the whole work.

In Canto I. after having recommended the beauties of nature to the study of contemplative minds, in preference to the folly, depravity, meanness, and disappointment resulting from a town-life, the bard says:

'*TRY* then to leave the city's peopled waste,
And form, by soft degrees, a rural taste:
Let town-bred projects to the country yield;
Adorn your garden; cultivate your field:
And though, while rustic toils your mind employ,
You miss, perhaps, the sage's purer joy,
Self-love will soon the vacant place supply,
And view its offspring with a parent's eye.'

He then dilates on the choice of country amusements, and on the sage's enjoyments in Spring; when,

'*FAREWELL* the gloomy screen's seclusive fold!
Farewell to dusty books, and lecture cold!
Nature's rich volume, to the mind display'd,
Invites the Muse—and be her call obey'd !'

In a short description of the seasons, he says, speaking of a summer's evening;

'*THEN* loves the eye, that shrunk before the day,
To drink refreshment from the moon's pale ray;
When modest Cynthia, clad in silver light,
Expands her beauty on the brow of Night,
Sheds her soft beams upon the mountain-side,
Peeps through the wood, and quivers on the tide.'

Then follows a description of domestic amusements in bad weather,—backgammon, chess, reading: next, Spring Amusements,—incitements to generosity—rural industry—rustic poverty relieved, &c. Here (p. 25.) we must stop to censure the translator's promiscuous use of the singular and plural pronouns, in

lines which are otherwise beautiful. Advising the philosopher to let his children be his almoners in the distribution of his charities, he says ;

• Oft with thy bounties, too, *thy* presence show,
And thus enhance the blessings *you* bestow ;
And let *thy* children there, with timid air,
To timid want the secret offering bear :
But most *thy* daughter, wearing on her face
The first of beauties, Virtue's modest grace,
Should to the wretched like an angel shine,
And pay her first-fruit vows at Bounty's shrine.
Thy offspring thus, with whom *thy* features grow,
Thy mind, and manners, shall in image show ;
Their richest portion *your* example gives ;
And, rear'd by *you*, their infant virtue lives.
Ye worldly men, disgust that dearly buy,
These pleasures cōtemplate with jealous eye."

Mr. Maunde has also taken a liberty with the accentuation of the word *cōtemplate*, which is not authorized by Johnson, nor by the *norma loquendi*.

The *Village Pastor* is beautifully painted in the original, and the translator has done justice to the delineation:—but we must hasten from this first Canto, which abounds with beauties, ad direct our attention to the second.

Here are described the wonders of the modern cultivation of lands :

• No more the simple power our fathers knew
She deigns each ancient maxim to pursue ;
Like some enchantress, with her wagic wand,
In treasures new she decks the smiling land ;
Subdues the rock, and clothes the mountain's face,
Fattens the soil, and gives its offspring grace ;
Frees from their chain the long-imprison'd tides,
And streams astonish'd to each other guides :
Her magic power, triumphant over times,
Together blends or seasons, worlds, or climes.
When primal man first till'd with fruitless toil,
No means were known to fertilize his soil :
Without distinction, or on mount or plain,
His careless hand dispers'd the useful grain ;
Till taught at length, by Time's instructing aid,
Each tree its country knew ; each soil its seed."

In this canto, we know not very well what the Abbé DeFille himself means by *sables tranchans*, which Mr. M. has very faithfully translated, *cutting sands*.

Strong *eulogia* are bestowed, in this book, on English farming ; and, in the notes, we have a history of the introduction of artificial grasses : as clover, sainfoin, trefoil, and their
different

different kinds. The improvement of domestic animals is also noted; and exotics are recommended where the soil and climate are favourable.

The word *Beastial*, used more than once for cattle, is not a happy coinage. There is no authority for its use, and it conveys a more unpleasant idea than was meant.

The beauty of rural scenes is now described, with their productions:

‘ Such joys I wish’d, ere life should quite expire,
And hope already, wing’d by my desire,
Though small the heritage she wish’d to gain,
Install’d my fancy in her proud domain.
While bowers, and groves and orchards round me wav’d,
What verdant banks my winding streamlet lav’d !
How dear my flow’rets, and my cooling shade !
What fatt’ning flocks along my pasture stray’d !
All laugh’d around me, and my fancy dreams
O’erflow’d with fields of corn and milky streams !
Short liv’d chimeras ! impotent and vain !
The broils of state that o’er my country reign,
Have left me nothing but my sylvan reed.
Adieu, my flocks, my fruits, and flowery mead !
Ye groves of Pindus, shades for ever green,
Transport me now to your poetic scene !
If Fate forbids to cultivate the plains,
To them at least I consecrate my strains.’

Canto III. begins thus in the original :

“ *Que j’aime le mortel, noble dans ses penchans,
Qui cultive à la fois son esprit et ses champs !*”

This couplet is not happily rendered by Mr. Maunde :

‘ I love the man, *that*, noble in his views,
The culture of his land and *soul* pursues.’

To cultivate the *soul* is not an usual expression : but it appears that the translator was driven to this extremity by the word *mind* (*esprit*) being wanted, as a rhyme, in the next line.—The ignorant and vulgar man is thus described :

‘ He knows not how, in secret channels fed,
From root to trunk the wandering sap is led ;
Thence through the boughs its liquid virtue sends,
Till in the leaves its rising effort ends.’—
‘ The Sage alone, who studies Nature’s laws,
Sincerest pleasures from the country draws.’

The physiology of this III^d Canto was difficult to write, and is still more difficult to translate. The Deluge and its effects demanded a Lucretius to delineate them. The course of rivers, hurricanes, volcanoes, subterraneous cities, sea wonders and productions,

ductions, and the whole range of natural history, are displayed in the poetry and the notes of this book; which will be found both amusing and instructive by young naturalists.

Canto IV. Beauties of the country depicted: Dull and frivolous rhimes ridiculed: The poet enters on a description of the grand features of Nature. South America.—Here some of the original bard's grandeur in describing the Andes is preserved in the translation.—The river of Amazons. Oroonoko: Africa. Horrors of winter near the Pole. Landscape: Life of Man. Roebuck. Horse. Description of different animals. Their qualities. Homer. Lucretius. Virgil. Plants: their instinct.—The author's reflections respecting his own country are beautiful. The ideas of an elegant and feeling writer, in describing the village in which he was born and nursed, must have some resemblance to those of preceding authors of a similar turn; and the following lines remind us of Mr. Rogers's beautiful poem on *the Pleasures of Memory*:

- SOMETIMES these scenes, in native beauty bright,
From fond remembrance gather new delight.
Rich through your strains each happy spot appears:
Yet shouldst thou add: "There rose my infant years;
"There broke the light upon my early view;
"There first my beating heart to pleasure flew;"
How does my soul the recollection prize!
Back to the distant time my fancy flies,
When, twenty years in tedious absence pass'd,
Again I saw my native fields at last.—
- At length arriv'd, wherever rovd my eyes,
Some fond remembrance still would love to rise.
There stood the tree, that zephyrs gently fann'd,
And swept my castles, trac'd upon the sand;
Here too the stone, my infant fingers threw,
Skimm'd o'er the lake, and leap'd and skimm'd anew.
What raptur'd bliss throughout my bosom glow'd,
When first embracing, while my tears o'erflow'd,
The hoary swain that staid my early tread,
The nurse whose milk my infant lips had fed,
And the sage pastor that my childhood led!

Here a coincidence of thought may have occurred, free from all charge of plagiarism or imitation. Mr. Rogers's work was first published in 1792; at which time, (we believe,) the Abbé Delille, involved in the horrors of the revolution, was in prison; whence escaping in 1793, on the death of Robespierre, he went into Switzerland, where he remained several years, and wrote the present poem.

After the author's tribute to the place of his nativity, we find a description of Paris, its enchantments, and its horrors—
which

which last are described with ink as black as that of Mercier. Then, in imitation of Horace:

O rus, quando ego te aspiciam

he exclaims:

‘ Ah, when, alas! shall he whose rural strains
Teach how t’inhabit and adorn the plains,
Enjoy those scenes where most he would delight?
Oh! fields belov’d, when will ye bless my sight?
When may I, now my peaceful slumbers take,
Now with choice books amuse me as I wake;
Now deck with simple grace my rustic bowers,
And idly pass away the listless hours;
Drink sweet oblivion of life’s careful lot,
Unknown to man, and man by me forgot?’

In the advice to descriptive poets, Pope’s Essay on Criticism has been closely and happily imitated.

The poem is terminated by an animated Eulogium on Virgil, the original author’s master and model; and it reads well in the translation,—except the last line, which is feeble. The Abbé says:

“ *Veuillent les dieux sourire à mes champêtres sons!
Et moi, puisse-je encore, pour prix de mes leçons,
Compter quelques printemps, et dans les champs que j’aime,
Vivre pour mes amis, mes livres, et moi-même!* ”

which lines are thus translated:

‘ Oh would the gods, propitious to the strain,
Grant the sole recompence I wish to gain!—
In my lov’d fields some seasons yet to tell,
And live for books, my friends, and self as well!’

On the whole, though this translation is unequal, and far from perfect, the parts which are happily executed convince us that, with less hurry and more correction, Mr. Maunde might have done greater justice to the author and to himself. As a ‘ first undertaking,’ it by no means calls for discouragement.

ART. III. *Philosophical Transactions of the Royal Society of London,*
for the Year 1801. Part I. 4to. 17s. sewed. Elmsly.

CHEMICAL and MINERALOGICAL PAPERS.

On the Production of artificial Cold by Means of Muriate of Lime.
By Mr. Richard Walker.

THE scientific world is already much indebted to Mr. Walker for various communications on the means of producing artificial cold, &c.; and he now pursues the same inquiry; observing, in the commencement of this paper, that he was

REV. NOV. 1801. R incited

incked to undertake the experiments here detailed, by the discovery of Professor Lowitz, respecting the powerful effects resulting from a mixture of muriate of lime with snow. He then gives a short account of the Professor's experiments; from which it appears that three parts of muriate of lime, with two parts of snow, mixed at the temperature of $+32^{\circ}$, will give -50° .

'The snow, to produce the greatest effect, should be fresh fallen, dry, and light or uncompressed; and the salt perfectly dry, and reduced to very fine powder.

'Professor Lowitz's method is, to add at once the salt to the snow; the latter being previously put into a convenient vessel. As the salt produces the greatest effect whilst it retains the greatest quantity of water of crystallization, he prepares it during a freezing atmosphere, pounds it, sifts it, and keeps it in close bottles in a cold place. With a mixture of this kind, Professor Lowitz froze, in one experiment, 35 pounds of quicksilver.'

Mr. Walker relates that he attempted to repeat the Professor's experiment under similar circumstances, but that the thermometer (the temperature of the air and the materials being $+32^{\circ}$) sunk in this instance no lower than 48° . He then cooled the materials by art to 40° below O; and, on mixing them, the thermometer sunk to 63° below O. Some of the same salt, in a crystallized state, was set out to deliquesce in the open air; and this liquor, mixed with snow, (each at the temperature of $+32^{\circ}$) gave a cold of -20° .

The muriate of lime, used in the above experiments, had been evaporated till it crystallized in air at $+32^{\circ}$; 'but, (says Mr. W.) an experiment with this salt, prepared as above, can be made only during a freezing atmosphere; the salt itself, thus prepared, becoming, as may be inferred from the above, and as I have myself experienced, unfit for use by a warmer temperature.' He was therefore prompted to try the effect of muriate of lime reduced to such a strength by evaporation and crystallization, as to endure being kept in a solid state throughout the year; and he had the satisfaction of finding that some of it, (which had been previously exposed to a temperature of $+70^{\circ}$ without melting,) being mixed with snow, each at the temperature of $+32^{\circ}$, caused the thermometer to sink to -40° ; and at another time, when the air was $+20^{\circ}$, Mr. W. froze quicksilver perfectly solid by a mixture of the same materials.

In pages 127 and 128, the author gives the results of his experiments, which he divides into two series; the first, consisting of those made with the muriate of lime, intended to be used only in winter; while the second consists of those made with the same salt, prepared so as to be ready for use at any time.

This

The paper concludes with a description of the apparatus employed, and with a table exhibiting a general view of the different frigorific mixtures, composed of chemical substances with ice; similar to that which was given by Mr. W. (page 279, *Phil. Trans.* for 1795,) of those in which ice is not used.

In a postscript, Mr. W. asserts that ice may at pleasure be obtained either in an opaque or perfectly transparent state; the former is always more or less the case when the vessel, containing the water to be frozen, is immersed in a frigorific mixture: but the latter effect is produced when the ice is formed in the manner of a coating, on the outside of the vessel containing the frigorific mixture.

Account of the Discovery of Silver in Herland Copper Mine, Cornwall. By the Rev. Malachy Hitchins.—The silver ore discovered in Herland copper mine consists of a mixture of galena, native bismuth, grey cobalt ore, nitreous silver ore, and native silver; the latter of which is chiefly found in a capillary form. The lode or vein in which it occurs is one of those cross courses, as they are called in Cornwall, which intersect and derange the copper lodes or veins, and which are therefore considered as being of a more recent formation. Mr. Hitchins says, (p. 163):

‘About one hundred and eight tons of this ore have been raised. The miners continue to sink near the same point of intersection; and seem confident that both lodes will soon become richer, because similar instances of declension and recovery have frequently occurred in the copper lodes of this mine, and because the two lodes appear to have a reciprocal influence on each other.

‘Unfortunately, however, the extent of their speculation is limited by the great depth of the present workings; for forty-five fathoms have been sunk since the first discovery of the silver; and twenty, or twenty-five fathoms more, are as much as can be sunk in this mine, with its present mechanical powers of drawing the water; at which level, viz. 180 fathoms from the surface, it would be somewhat deeper than any mine in Cornwall, and about 130 fathoms below the level of the sea, at low-water mark.’

Description of the Arseniates of Copper, and of Iron, from the County of Cornwall. By the Count de Bournon.—The natural combination of the arsenic acid with copper, known by the name of arsenate of copper, has, till very lately, been exceedingly rare even in this country, where it is almost exclusively found; and, on this account, the descriptions given of it by various mineralogists have been very imperfect. Within the last two years, however, the cabinets of London have been considerably enriched by a large number of fine specimens discovered in a new copper mine, called Huel Gorland; and

the Count de Bournon has thus been enabled to investigate and describe the various crystallizations, and other appearances, assumed by this remarkable substance.

The Count observes that above twenty years have elapsed since the arseniate of copper was first discovered, either in Carrarach mine in the parish of Gwennap, or in Tincroft mine in the parish of Allogan. The matrix of the ores of these mines is a decomposed granite, in which the feldspar has passed into the state of that argillaceous substance called kaolin. The matrix also of the one of Huel Gorland is siliceous, sometimes crystalline, and sometimes in an amorphous mass; occasionally, more or less mixed with all the known oxides of copper, with some of the oxides of iron, with grey vitreous copper ore, arsenical pyrites, and the rich deep coloured yellow copper ore: which, from its mamillated and botryoidal forms, as well as from some additional peculiarities, the Count de Bournon distinguishes from the other varieties of yellow copper ore by the name of yellow hematitic copper.

Nature (says the author) has established very remarkable differences between the arseniates of copper; and these take place not only in their forms, but likewise in their hardness and specific gravity. These differences arise, either from the manner in which the arsenic acid is combined with the copper, or from the different proportions in which these two substances are combined. I have been naturally led to follow the same order, and to divide the arseniates of copper into four different species: and the very interesting analysis of this substance made by Mr. Chenevix, has afforded me the most satisfactory sanction to this division. It is thus that the chemist and the naturalist, by freely uniting their labours, without jealousy or prejudice, ought in all cases to proceed, in order to attain that certainty which is the desirable recompense of their endeavours.

The Count de Bournon then proceeds to describe the following species of the arseniates of copper:

Species 1. *Arseniate of copper in the form of an obtuse octaedron.* The most simple shape, under which this species appears, is a very obtuse octaedron, produced by the united bases of two tetraedral pyramids, with isosceles triangular planes; and this appears to be its original form. It varies in colour, from sky to Prussian blue, and frequently is of a fine grass green: it is seldom perfectly transparent; and its specific gravity is 2,881.

Species 2. *Arseniate of copper in hexaedral laminae, with inclined sides.* This is of a fine deep emerald green colour; and the specific gravity is 2,548.

Species 3. *Arseniate of copper in the form of an acute octaedron.* The colour of this species is usually brown or bottle-green, sometimes with a yellowish or golden tint:—the average specific

cific gravity is 4,280. The author remarks that this is not always crystallized in a determinate form, but is an absolute proteus both with respect to the different shapes in which it appears, and the various colours which it exhibits. He then notices the five following varieties: 1. Capillary, of a determinate form, which is that of a very lengthened octaedron. 2. Capillary, of an indeterminate form. 3. In crystals perfectly regular for a part of their length, and fibrous at their extremity. 4. Amianthiform. 5. Hematitiform.

Species 4. *Arsenate of copper in the form of a triedral prism.* The colour of this is a very beautiful bluish, or deep verdigrise green; and the specific gravity is 4,280.—This species, as well as the former, is susceptible of many modifications in the figure of its crystals: but the nature of our publication will not allow us to enter into minute particulars. We must therefore here conclude the first section of Count de Bournon's paper, and proceed to the second, which treats of the arseniates of iron.

The Count observes that these arseniates are found in Muttrel mine, which is immediately contiguous to Huel Gorland. Hitherto they have been confounded with the arseniates of copper: but the result of Mr. Chenevix's Analysis (see the succeeding paper) proves, beyond a doubt, that they are composed principally of iron combined with the arsenic acid. The present author then describes the two following species:

Species 1. *Simple arseniate of iron.* The crystals of this species in general are perfect cubes, of a dark green, brownish, or yellowish colour. The specific gravity is 3,000.

Species 2. *Cupreous arseniate of iron.* The crystals of this species are of uncommon brilliancy, and perfectly transparent. Their form is a rhomboidal tetraedral prism, having two of its edges very obtuse, and the other two very acute. The prism is terminated at each extremity by a sharp tetraedral pyramid. The crystals seldom occur singly, but are generally grouped in an irregular manner. The colour most commonly is a very faint sky-blue; and the specific gravity is 3,400.

We doubt the propriety of this part of the Count de Bournon's arrangement; since, from Mr. Chenevix's analysis of these two arseniates, they do not appear to be distinct species, but rather varieties of the cupreous arseniate of iron. We shall more fully consider this part in our remarks on the following paper.

Analysis of the Arseniates of Copper, and of Iron, described in the preceding Paper; likewise an Analysis of the Red Octaedral Copper Ore of Cornwall; with Remarks on some particular Modes of Analysis. By Richard Chevenix, Esq. M. R. I. A.—We

have seen, in the preceding paper, the external characters of these arseniates, very accurately described by the Count de Bournon; and the present memoir, we think, will prove that the analysis of these substances has been not less ably performed by Mr. Chenevix.

‘ When the Count de Bournon (says Mr. C.) had completed what appeared to him to be the mineralogical classification of these copper ores, he gave me some specimens of each kind, numbered indiscriminately, for the very purpose of excluding prejudice: and it was not till my task was ended, that we compared our observations. If I had been admitted into any previous knowledge of the arrangement dictated to him by the principles of crystallography, I should have been afraid, that I had merely thought true, what I wished to be so. But I can, most conscientiously, indulge in the satisfaction which the according results of different means to prove the same proposition naturally excite; and which is justly due to the truth of the outward marks, however delicate, yet still to be perceived, that nature has left visible to those who will observe her.

‘ I shall now proceed to offer the result of a chymical analysis, undertaken with a view to determine what confidence the crystallographical arrangement, adopted in the preceding paper, might merit; and to shew how far sciences so nearly allied, may receive new light and confirmation from reciprocal aid.

‘ I shall confine myself to detail only those general processes which, upon frequent trial, have been found preferable. By reducing to powder any of the arseniates of copper here spoken of, and then exposing them to heat in a platina crucible, the water of crystallization was quickly dissipated. But, as too great a degree of heat volatilized some portion of the arsenic acid, it was found necessary to moderate the heat; and, in order that every particle of water might be finally expelled, to prolong it. When the diminution of weight was ascertained, the residuum was dissolved in acetous, or, still better, in dilute nitric acid, and nitrate of lead was poured in. Arseniate of lead and nitrate of copper were thus formed, by double decomposition; but, when more nitric acid had been used than was strictly necessary to dissolve the arseniate of copper, no precipitate appeared, till the liquor had been evaporated. When the evaporation was pushed too far, part of the nitric acid, contained in the soluble nitrate of copper flew off; and that nearly insoluble cupreous nitrate, first mentioned by Mr. Proust, was produced. To obviate both inconveniences, alcohol was added, immediately before the liquor was quite evaporated, and long after the precipitate had begun to appear; in a few minutes, all the arsenic of lead fell to the bottom, while the nitrate of copper was held in solution. These new products being separated by filtration, the spirituous liquor was distilled; and, from the nitrate of copper, the quantity of that metal contained in the ore was obtained, by boiling the solution with pot-ash or soda.’

Mr. C. afterward observes that he has given the preference to lead above every other method of combining arsenic, in order

order to determine its quantity in any other body; having found arseniate of lime, which has been hitherto recommended, as well as all other earthy arseniates, to be nearly as soluble in water as sulphate of lime. He then relates some experiments which he previously made, to ascertain the exact composition of arseniate of lead; whence it appears that 100 parts contain

Arsenic acid	-	-	33
Oxide of lead	-	-	63
Water	-	-	4

100

The above-described method of ascertaining the proportion of arsenic acid, in the arseniates of copper, is undoubtedly a very good one: but Mr. C. also points out the following mode, which may be deemed shorter, and perhaps even more accurate. 'After the quantity of water has been estimated, the remainder may be treated by either of the fixed alkalis, which will combine with the acid, and leave the brown, the only real, oxide of copper, in the same state as that in which it existed in the ore; the alkaline liquor may be neutralized, as above, and the proportions determined in the same manner.'

Having thus stated the mode of analysis employed by the author, we shall proceed to give the results.

No. 1. *Third Species of the preceding Paper.*

Oxide of copper,	60
Arsenic acid,	39,7
	<hr/>
	99,7

No. 2. *Fourth Species of the preceding Paper.*

Oxide of copper,	54
Arsenic acid,	30
Water,	16
	<hr/>
	100

No. 3. *Variety 2 of the third Species.*

Oxide of copper,	51
Arsenic acid,	29
Water,	18
	<hr/>
	98

No. 4. *Variety 5 of the third Species.*

Oxide of copper,	59
Arsenic acid,	29
Water,	21
	<hr/>
	100

No. 5. *Second Species of the preceding Paper.*

Oxide of copper,	58
Arsenic acid,	21
Water,	21
	<hr/>
	100

No. 6. *First Species of the preceding Paper.*

Oxide of copper,	49
Arsenic acid,	14
Water,	25
	<hr/>
	98

As the yellow hematitic copper ore, and the grey vitreous copper ore, so generally accompany the arseniates of copper and of

iron, Mr. Chenevix thought it right to make an analysis also of these; and he thus states their composition:

No. 7. <i>Yellow Hematitic Copper Ore.</i>		No. 8. <i>Grey Vitreous Copper Ore,</i>	
Sulphur,	12	Sulphur,	12
Silica,	5	Copper,	84
Copper, probably in the metallic state,	30	Iron,	4
Oxide of iron,	53		<hr/> 100
	<hr/> 100		

The author is of opinion that the colour in some specimens of arseniate of copper may be explained on chemical principles; because, having observed that the colour of these corresponds with the proportion of water contained in them, and having considered the experiments of M. Proust*, with the addition of certain results deduced by himself, he concludes that we have never yet obtained, by art, any real salt of oxide of copper; for that all of those, which are generally considered as such, are compounds of the oxide combined with a certain portion of water (forming a particular substance, to which M. Proust has given the very improper name of hydrate,) dissolved in an acid. According to Mr. Chenevix, therefore, the blue salt which is denominated sulphate, nitrate, or muriate of copper, should be called sulphate, nitrate, or muriate of hydrate of copper; because it is not a compound of oxide with the acid, but of hydrate with the acid—This is a question which can only be fully resolved by future experiments; and we know that the existence of hydrates is much doubted by many chemists, particularly by M. Fourcroy, who has stated his objections in his *Système des Connaissances Chimiques*. Nevertheless, taking every circumstance into consideration, we are much inclined to adopt the opinion of M. Proust and Mr. Chenevix.

From a general view of the foregoing analysis, it appears that the author considers No. 1. as the only real arseniate of copper; all the others being, in his opinion, arseniates of hydrate of copper.

In the second section of this paper, Mr. C. gives the analysis of the arseniates of iron. Some preliminary experiments, which he relates, indicated the following ready method of decomposing the ore:—One hundred parts, boiled with potash, immediately became of a deep reddish brown: the liquor was separated from the residuum by filtration; and, after the usual

* *Annales de Chimie*, vol. xxxii. p. 26.

neutralization, evaporation, and affusion of nitrate of lead, it gave a precipitate equal to 35,5 of arsenic acid. The first residuum weighed 53; this being dissolved in muriatic acid, 3 of silica remained.—Ammonia, poured in excess into the muriatic solution, redissolved 22,5, which were copper; and 27,5 of iron remained. By this method, the two following analyses were performed:

<i>Cupreous Arseniate of Iron.</i>		<i>Simple Arseniate of Iron.</i>	
Silica,	3	Silica,	4
Arsenic acid,	33,5	Arsenic acid,	31
Oxide of iron,	27,5	Oxide of iron,	45,5
Oxide of copper,	22,5	Oxide of copper,	9
Water,	12	Water,	10,5
	<hr/>		<hr/>
	98,5		100,0

Mr. Chenevix considers this last as being a pure arseniate of iron, mixed *accidentally* with a little copper: but we cannot agree with him in this opinion; for we deem it more probable that the 9 parts of oxide of copper, detected in the last analysis, are truly essential to this compound, as much as the 22,5 of copper are to the former one:—at least we cannot find, in this paper, any fact or argument which opposes the more natural idea, that the two abovementioned arseniates are modifications of the same substance: for surely the smallness of the quantity of copper, present in the second arseniate, cannot be regarded as any proof that it is *accidentally* present. We are therefore much inclined to believe that these arseniates should not be considered as two distinct species, but rather as two varieties of one species, viz. the cupreous arseniate of iron.

After having stated these analyses, the author makes some observations on the different oxides of iron. These, however, we are obliged to omit; and to proceed to the third and last section, intitled, *Analysis of the Red Octahedral Copper Ore, in which the Metal exists in a State hitherto unknown in Nature.* This ore, which is well known to mineralogists under the name of red or ruby coloured copper ore, has been analysed by various chemists: but Mr. Chenevix observes that, among the many analyses of this ore, he did not find one which, in the proportions, or even in the ingredients, resembled what he found to be the contents. He then relates that, having obtained, by precipitation, from 100 parts of this ore, 88,5 of metallic copper, and finding that only 11,5 of oxygen were combined with it, he concluded that the ore consisted of a mixture of oxide of copper with a portion of the metal; and he was the rather induced to be of this

this opinion, because the only oxide of copper existing in nature, with which he was acquainted, contained 20 per cent. of oxygen. By solution in muriatic acid, however, he found that no metallic copper was present; although, from the effects of nitric acid, it was evident that the metal was not at its maximum of oxidation. By a subsequent experiment, he found that a portion of the powdered ore could be dissolved by dilute phosphoric acid; and that the portion, which was dissolved, had taken the oxygen from the undissolved part: so that the former was oxidated, as usual, in the proportion of 20 per cent. while the latter was completely reduced to the metallic state.—From the whole of the experiments, Mr. Chenevix infers that this ore is a suboxide of copper, because it contains much less oxygen than has ever been suspected in any oxide of copper hitherto known: the proportions of copper and oxygen being as follow:

Copper,	88,5
Oxygen,	11,5
	<hr/>
	100,0

This elaborate paper reflects much credit on its author, since it discovers considerable knowledge, industry, and ingenuity. In some parts, however, Mr. C. appears rather too prolix; and he begins in a more pompous and flowery style than we commonly see employed, (at least in this country,) when philosophical experiments are to be related: but these are trifles, —matters of fancy,—and cannot depreciate the real value of this truly scientific memoir.

[To be continued.]

ART. IV. *The Doctrine of Phlogiston established*, and that of the Composition of Water refuted. By Joseph Priestley, LL. D. F. R. S. &c. 8vo. pp. 90. Printed at Northumberland, in America. 1800. Imported by Johnson, London. Price 3s. 6d.

THIS respectable veteran in philosophy continues to defend the doctrine of phlogiston against the system of the French chemists, with vigour unabated either by years or by change of circumstances. On the general question, we imagine, most of our chemical friends have already formed their decision; yet they will be much pleased with the spirit and ingenuity displayed in this treatise. Every thing, indeed, which proceeds from Dr. Priestley's pen on this subject, is intitled to particular regard, as he was among the first to lead the way in the vast field of pneumatic chemistry. We shall, therefore, state his

his principal objections to the French doctrine, leaving our readers to draw their own conclusions.

Dr. Priestley infers *that metals are compound substances, and contain phlogiston*, from the phenomena attending the solution of iron in vitriolic acid. The inflammable air produced in the process does not, he imagines, proceed from the water, because he cannot discover a proportionate quantity of oxygen in the vessel. To prove that the oxygen, in this case, does not combine with the iron, he produces the following experiment :

‘ For this purpose I took as much vitriolic acid as I had found in the experiment recited in vol. iii. p. 197. of my *Observations on Air*, (in three vols.) to have yielded 130 ounce measures of dephlogisticated air, of the standard of .15, which is extremely pure, and saturated it with iron. But after this it yielded only 52 ounce measures of air, of the standard of .55, which is much less pure. This shews that this precipitate is so far from containing more oxygen, that it contains less than the acid. It is in reality possessed of the opposite principle, which is agreeable to the phlogistic theory. For since much more inflammable air is procured from iron by means of steam only, than by its solution in any acid, more of the principle of which inflammable air consists, viz. phlogiston, must adhere to this calx of iron than to the other.’

A succeeding proof is drawn from the production of inflammable air, when one metal is precipitated by another in its metallic state : which fact, he thinks, cannot be satisfactorily explained on the new system.

Dr. P. then treats of the properties of *Finery Cinder*, which is reckoned an oxide of iron by the antiphlogistians : but he contends that it does not contain oxygen. The points on which he chiefly rests are, that, when finery cinder is dissolved in marine acid, it does not oxygenate the acid ; and that, when it is revived in inflammable air, no fixed air is produced. For the Doctor's reasoning on these facts, we must refer to his pamphlet.

The next experiment alleged by the author is the production of inflammable air, by heat, from a mixture of finery cinder and charcoal. He says ;

‘ This fact I cannot account for on the principles of the new theory ; but nothing is easier on those of the old. For the finery cinder containing water, as one of its component parts, gives it out to any substance from which it can receive phlogiston in return. The water, therefore, from the finery cinder uniting with the charcoal, makes the inflammable air, at the same time that part of the phlogiston from the charcoal contributes to revive the iron. Inflammable air, of the very same kind, is procured when steam is made to pass over red hot charcoal.’

In answer to the objection that the finery cinder may be supposed to contain a sufficient quantity of water to furnish the hydrogen, he observes;

‘ But if we suppose finery cinder to contain water, and so much of it as is necessary to form all the air that is produced in this process, both fixed and inflammable, we must, surely, abandon the most fundamental principle of the new theory, which absolutely requires water to be decomposed in passing over hot iron, the oxygen alone remaining in the iron, and the hydrogen escaping in the form of inflammable air; and it is only by comparing the addition of weight acquired by the iron in this case, that the proportion between the oxygen and the hydrogen in the composition of water is ascertained. Besides, how can it be supposed that water should both be decomposed, and not decomposed, in the same circumstances?’

As this seems to be the strongest part of Dr. Priestley’s argument, we add the following extract:

‘ Messrs. Berthollet and Fourcroy, however, say that this inflammable air comes from the decomposition of the “water contained in the charcoal, and which they say cannot be separated from it but by forming a new combination with it.” *Annales de Chimie*, vol. 26. p. 306.

‘ But as water is no constituent part of charcoal, it certainly may be separated from it by heat, without forming any new combination, or undergoing any decomposition.

‘ If it be the water adhering to the charcoal that is decomposed, and the component parts of this water enter into a new combination with the carbon of it, I ask of what use is the finery cinder in the process, which, however, is essential to the success of it; and why might not the same heat have the same effect in decomposing this water, without the finery cinder, as well as with it?

‘ They do not say they have any occasion for the oxygen contained in the finery cinder, which, however, leaves it in this process; since the iron is revived; and how can they account for the separation of this oxygen from the iron without the supposition of something going in to take its place. Heat alone will not effect this. For heat tends to unite, and not to separate them.

‘ In whatever manner this water, adhering to the charcoal, contributes to the formation of inflammable air, Mr. Berthollet himself would say that when any particular degree of heat would not make charcoal yield any more inflammable air, there was no more water retained in it than the same degree of heat was able, with its assistance, to decompose. But after this, by the assistance of finery cinder, with even a much less degree of heat, it yields inflammable air very copiously, just as if steam had been made to pass over it in that heat; and, judging from evident appearances, there cannot be a doubt but that, with a sufficient quantity of finery cinder to supply it with water, all the phlogiston in the charcoal, exclusive of that which contributed

tributed to the revival of the iron, would be converted into inflammable air.

‘As to the proportion between the fixed and inflammable air procured by this process, it is about the same with that procured from charcoal by means of steam, and will probably vary with the proportion of finery cinder, as that does with more or less water.

‘That finery cinder contains nothing but water appears not only from its enabling charcoal to give out air exactly as water would do, but from its doing the same with respect to *terra ponderosa aerata*, which also gives out air by means of water, but not without.

‘I mixed a quantity of this substance, reduced to a powder, with pounded finery cinder, and in a gun barrel, heated red hot, I got from it fixed air as copiously as if steam had passed over it. There was a considerable residuum of inflammable air from the iron.

‘When I first made this experiment with charcoal and finery cinder, I remember Mr. Watt said, it was one that the Antiphlogistians could never reconcile to their hypothesis; and the more I consider it, and the objections that have been made to it, the more reason I see to be of his opinion.’

Several experiments follow, to prove that the calces of zinc do not contain oxygen.

Dr. Priestley next argues that sulphur cannot be a simple substance; because sulphur is not produced when dephlogisticated air is expelled by heat from vitriolic acid.—He adds;

‘According to the phlogistic theory, the formation of sulphur from water impregnated with vitriolic acid air is very easy; both the ingredients of which it is composed being present, viz. its basis, vitriolic acid, and phlogiston. They are only made to form a different mode of combination by the heat in a tube hermetically sealed. For the vitriolic acid air is produced by heating in vitriolic acid most of the metals, or any other substance, solid or liquid, that is said to contain phlogiston.

‘If it be said that the sulphur may be formed in this experiment by the heat separating the acid from its base; I answer that then the remaining water should be more acid than before; whereas I find it to be less so. This diminution of acidity I account for from the extreme volatility of this phlogisticated acid. But had the acid been that of vitriol unphlogisticated, it would have been obstinately retained by the water. Besides, it would, surely, be more easy to expel all acid from a liquor passing through a red hot open tube, than from a liquor confined in a glass tube hermetically sealed, so that it cannot possibly escape; and when it is exposed to no more than a moderate degree of heat. For had it approached to a red heat, the tube would have burst.’

To the arguments in favour of the new doctrine, taken from the revival of the calces of mercury without addition, Dr. P. objects that he has never been able to reduce the whole of a quantity of turbith mineral, by heat alone; and he thinks that the presence of phlogiston is proved by the absorption

absorption of a great proportion of inflammable air, on the revival of red precipitate in it.

The author now attacks the great support of the new theory, — the decomposition of water. We must omit the report of his arguments, because they scarcely admit of abridgement; but we shall quote the account of his experiments in close vessels, with the two species of air that are generally supposed to form water by their union:

‘ When dephlogisticated and inflammable air, in the proportion of a little more than one measure of the former to two of the latter (both so pure as to contain no sensible quantity of phlogisticated air) are inclosed in a glass or copper vessel, and decomposed by taking an electric spark in it, a highly phlogisticated nitrous acid is instantly produced; and the purer the airs are, the stronger is the acid found to be. If phlogisticated air be purposely introduced into this mixture of dephlogisticated and inflammable air, it is not affected by the process, though, when there is a considerable deficiency of inflammable air, the dephlogisticated air, for want of it, will unite with the phlogisticated air, and, as in Mr. Cavendish’s experiment, form the same acid. But since both the kinds of air, viz. the inflammable and the phlogisticated, contribute to form the same acid, they must contain the same principle, viz. phlogiston.

‘ If there be a redundancy of inflammable air in this process, no acid will be produced, as in the great experiment of the French chemists, but in the place of it there will be a quantity of phlogisticated air together with water.’—

‘ When the decomposition of phlogisticated and inflammable air is made in a glass vessel, a peculiar *dense vapour* is formed, which the eye can easily distinguish not to be mere vapour of *water*, and if the juice of turnsole be put into the vessel, it immediately becomes of a deep red, which shews that it was an acid vapour.’

In the next section, Dr. Priestley urges farther, against the decomposition of water, that, by passing steam slowly over red-hot charcoal, the whole of the produce is inflammable air, without any mixture of oxygen; and that, when steam is passed over *Terra Ponderosa ærata*, in a red heat, nothing but the purest fixed air is produced: which, the Doctor says, must be furnished by the *terra ponderosa*. According to one of these experiments, therefore, water ought to consist of hydrogen only; and, according to the other, of oxygen only.

The following chapter relates to various experiments on the supposed decomposition of water. Dr. P. thinks that he has proved that inflammable air is furnished, in the preceding experiments, by the *metals*, not by the *water* employed; and that no real decomposition of water has taken place.—He then undertakes to combat the modern opinions respecting the constitution of fixed air, and of phlogisticated air:

‘ But

‘ But in many of my experiments, large quantities of fixed air have been procured where neither charcoal, nor any thing containing charcoal, was concerned, or none in quantity sufficient to account for it.

‘ There is no metal that I have ever heated with a burning lens, over lime water in atmospherical air, without producing a thick scum on its surface, which was, no doubt, *lime*, formed by the quicklime in the water and the dephlogisticated air contained in the portion of atmospherical air in which the process was made. For this purpose I have tried not only iron and zinc, which are said to contain plumbago (a kind of carbone from which some fixed air may be expelled) and also lead, tin, bismuth, copper, &c. as observed before, but even gold, silver, and platina, and it will hardly be pretended that all these metals contain carbone.

‘ From a quantity of calx of lead, part grey and part yellow, in a glass tube, I got its bulk of almost pure fixed air, and the residuum extinguished a candle. Where could be the carbone in this case?’

This subject is pursued in experiments on pyrophorus, fallen lime, &c.

The last section contains arguments against the existence of azote, in favour of the compound nature of phlogisticated air. —Dr. P. observes, in conclusion, that

‘ Before the new theory of chemistry can be unexceptionably established, the following things must be done :

‘ 1. Whenever inflammable air, or *hydrogen*, is procured, evidence must be given of the production of a due proportion of *oxygen*, that is of 85 parts of this to 15 of the other; and this evidence must be something more than an addition of *weight*. It must be either actual *acidity*, or *dephlogisticated air*. Otherwise there is no proof of the inflammable air having come from the decomposition of the water. This, however, has not been done with respect to iron, or any other substance by means of which inflammable air is procured.

‘ 2. When water is procured by the burning of inflammable air in dephlogisticated air, not only must the water be free from acidity, but there must have been no production of phlogisticated air in the process. For by the decomposition of this air the nitrous acid may be procured.’

An Appendix consists of miscellaneous matter, which does not require our particular notice.

ART. V. *Sermons* by John Mackenzie, D. D. Minister of Portpatrick. 8vo. pp. 400. 6s Boards. Robinsons. 1801.

FROM the clergy of the Scots church, we have received some excellent specimens of pulpit-eloquence. Blair, in particular, has proved that sermons may be elegant without losing their appropriate character; and he has thus been instrumental in exciting

exciting a fastidiousness among readers of these compositions, which greatly augments the difficulty of success in those who follow him. When a clergyman of the same church pursues the track in which this deceased divine gathered such deserved laurels, expectation of considerable merit will be excited; and the public will not be prepared to tolerate that mediocrity to which, in another case, it might be disposed to grant its indulgence. Dr. Mackenzie seems to have been aware of this circumstance; and he has evidently laboured the sermons now before us, in order that they might reflect credit on himself, and reward the attention of their readers. In some respects, they certainly are not common, since they contain discussions which are not usually prosecuted in the pulpit; but then it must be confessed that they are rather dissertations than sermons. The author, indeed, apologizes for having given this denomination to them; and also for their length; some of them, especially, being so extensive, that they would exhaust the patience and defy the retentive powers of any auditory. Points of theological doctrine are not argued in them, because the Doctor's great object is to evince the importance of morality: a design which he aims at accomplishing rather by forcible reasoning, than by elegant and polished diction.—We have attentively followed him through the volume; and we shall first briefly state the subject of each discourse, and then offer such strictures as the discharge of our duty requires from us.

The sermons are nine in number; and they treat of the Quality of Vice—the Quality of Virtue—Criminal Pleasure—Pride—Theft—the Evils of Speech—the Idolatry of the Hebrews—the Return of the Jews from Babylon—the History and Character of Revealed Religion.

Were we to advise the perusal of the first of these discourses, and then add, *ex uno disce omnes*, we should injure both the author and the public; since this sermon is much more liable to objection than the others. Dr. M. commences it with an attempt to envelope morality in impenetrable mystery; and he uniformly represents vice as a *quality*, rather than as a disposition of mind and a course of action. He speaks of vice as possessing some 'unknown malignant quality,' as 'an agent that works upon the universe,' producing not only the wildest disorders among our species, but the most dreadful explosions in the elements:—he even adds; 'Earthquakes, hurricanes, and inundations, have probably the same connection with vice as the diseases of the human body.'—Now this we apprehend to be a very incorrect view of the subject. Pride, theft, adultery, murder, or criminal pleasure, are not strictly *qualities*; they

they are evil *dispositions, habits, and actions*; and though it be common to speak, in general, of the *qualities* of virtue or vice, we understand by this term only their nature and operation. It is certainly very easy to shew the tendency of vice to render us miserable, without involving the subject in any mysteries. If we define vice, as Dr. M. himself (happily, for a moment, forgetting his favourite hypothesis,) has defined it, (p. 180), to be 'the excess or abuse of some passion, or of some natural sentiment;' how little occasion will there be for considering the consequent evil or misery as inexplicable! The violation of divine order and law must necessarily meet with punishment:—under the moral government of God, *vice* (*i. e.* an infringement of his established constitution of the universe, both material and intellectual,) must be attended with prejudicial consequences; while *virtue* (*i. e.* a conduct which is in harmony with the whole system of Providence,) must be productive of happiness:—hence the former is folly, and the latter is wisdom. The Divine Being has clearly marked his disapprobation of vice by ordaining that, in the course of nature, the excess or abuse of our passions shall operate to the injury of the body; and, when communities have become very corrupt, we read of their having been visited by extraordinary judgments: but we do not perceive how it can be inferred, that hurricanes and inundations are the result of vice equally with the diseases of the human body.

Excepting this disputable sentiment, into which the author apparently has been betrayed by contemplating virtue and vice as *qualities of a mysterious nature*, we have pleasure in informing our readers that there is much to admire in his discourses; and all those who have any moral sensibility must be benefited by a perusal of them. Guided in general by a discriminating mind, Dr. M. arranges his ideas with great perspicacity; and, fearless in the cause of virtue, he delivers his opinions with a freedom and an energy which will be highly honourable to him in the estimation of all good men. He does not attempt to ingratiate himself with the rich, the titled, and the powerful, by any time-serving maxims: but he directs the noble and the politician to such a contemplation of existing evils, as is calculated to excite them to beneficial repentance, and induce them to support their own importance, as well as the great interests of civil order, by practical morality and religious example.

In the discourse on Criminal Pleasure, the author describes the affection of love, and then exhibits the advantages of a married life compared with libertine indulgence:

'How pleasing (says he) is the affection of love, when it first approaches the soul, arrayed with its native innocence and simplicity?

Rev. Nov. 1801.

S

It

you cultivate these principles, they will, in the first instance, enlarge your views, and fit you for statesmen; and, in the next, they will abate much your value for the present world, and be your best guard against injustice. Acting upon a system of this sort, a statesman becomes a glorious character. He is then the patriarch of his nation. But when, instead of cultivating all the honest, fair means of living, within himself, he commences a war of injustice against his neighbours, he is then a real robber, and becomes a curse and an execration among his species.—It shews, in a strong light, the character of the vicious quality, that the evil disposition of one profligate, or short-sighted statesman, will, even unknown to himself, and sometimes even contrary to his own intentions, often certainly to the intentions of his nation, actuate, if it be once admitted, the whole body of a people, and precipitate, in the most unaccountable and dreadful manner, the great masses of the nations upon one another.

The discourse on the evils of speech ably shews the importance of governing the tongue, and merits a very attentive perusal; while the observations which are offered in the concluding sermons, on Idolatry, on the Captivity of the Jews, and on the Character of Revealed Religion, evince a meritorious accuracy of reflection on the history of the Bible.

We recommend to the consideration of infidels the following short extract from the last sermon, because it places the subject of our Saviour's mission in a striking point of view:

'The Jews and Gentiles agreed perfectly in the sacrificial system, with no other difference than this, that the former offered sacrifices to one God, and the latter to many. In the midst of this arose a man who introduced the religion of the affections, and rejected sacrificial worship. In the room of a religion which was addressed to the senses, he proposed one which had no connection with them; and, instead of sacrifices and outward forms, he substituted the devotion of the heart, and the practice of the plain duties.—The religion of sacrifices was more ancient, as well as more universal, than idolatry itself. The passing from the sacrificial worship to the worship of the affections, was as great a revolution in religion, as the passing from idolatry to the worship of one God. Moses had ventured upon the one of these, but did not attempt the other. While he called his nation to the worship of the one God, he proposed not to abolish sacrifices. He contented himself with establishing the first point, but did not enter upon the second. As little did he bring forward the doctrine of a future state, or the universal government of the Supreme Being. Religion hardly raised her views above the earth, and the divine favour was thought to be confined to one nation. It was reserved for the great author of Christianity to complete the work. In the midst of gross worship, and partial ideas of divine government, Jesus Christ arose. He not only exposed the corruptions, but threw new light upon the principles of religion.'

If any thing farther may be objected to these discourses, it is that they abound in Scotticisms. Such impurities of style should be corrected in a second volume, which we have no doubt Dr. M. will be encouraged to publish.

ART. VI. *An Essay on Military Law*, and the Practice of Courts Martial. By Alexander Fraser Tytler, Esq. Advocate, and Judge Advocate D. of N. Britain. 8vo. pp. 440. 7s. Boards. Egerton. 1800.

THE importance of the subject, and the professional experience of the writer, have given no inconsiderable interest to the present publication. The frequency of courts martial, during the period of a war, renders it necessary that the rules, by which they are conducted, should be generally known and understood;—more especially since erroneous opinions have been entertained and disseminated by persons of high celebrity. The great commentator on the laws of England, relying too implicitly, in this instance, on the authority of Lord Coke and Sir Matthew Hale, confounded that military law which is instituted and governed by statute, and which must prevail wherever the military profession exists, with that martial law, which is adopted only in times of the most extreme anarchy and danger, and is exerted for the correction of those disorders which bid defiance to the ordinary vigour of the civil power. This is ‘a remedy (as the present author justly observes,) warranted only by the last necessity, and therefore to be commensurate in the endurance of its operation to the immediate season of extreme danger.’ Such an instance of its lamentable necessity was experienced in the late rebellion in Ireland; where it became requisite to proclaim martial law, but which was designed to continue no longer than the rebellion itself. The sentiments of Lord Loughborough on this delicate and interesting topic, as delivered in the Court of Common Pleas, in the case of Serjeant Grant, are well worthy of perusal; because they accurately mark the distinction between martial law properly so called, and that military law by which the British army is regulated.

Mr. Tytler begins his work with an historical view of the rise and progress of the military law in England, from the Conquest to the time of the Revolution; and, in this detail, he distinctly shews that the martial law, as reprobated by Coke and Hale, and afterward by Blackstone, is materially different from that law which, in the shape of a mutiny bill, is annually renewed by the authority of parliament; and which, consequently, has the same obligation on those to whom it extends, as the common and statute law possess over the nation at large. After this preliminary statement, which

was rendered necessary by the mistakes in which the subject had been involved, Mr. T. proceeds to discuss the authority of courts martial; and in this part of his work he considers the power, entrusted to his Majesty by the Mutiny Act, of forming, making, and establishing articles of war for the better government of the forces; "which articles shall be judicially taken notice of by all judges, and in all courts whatever."

Those persons who are subject to military law next come under the author's consideration. It was decided in Grant's case, above mentioned, that the bare circumstance of receiving pay as a soldier was sufficient to fix the military character, so far as to render a man amenable to trial before a court martial.—From this part of the volume, we shall extract what is said on the subject of aliens, members of parliament, and officers under suspension:

It is the opinion of Lord Chief Justice Hale, that *aliens* who, in conjunction with domestic traitors, endanger the safety of a state, either by exciting rebellion and insurrection among its native subjects, or stir them up to individual acts of treason, are punishable by martial law. (Hale's Pl. Cor. c. 104 15.) This is a topic which demands some investigation. It is allowed by every writer on the law of nature and nations, that although in general it is lawful in war to take all those means of annoying an enemy which nature and occasion afford, yet there are certain modes of hostile operation which the sentiments of all polished nations have agreed to reprobate as contrary alike to good policy and morality; and therefore as evidencing a baseness and treachery which remove their perpetrators from the condition of ordinary enemies. When, therefore, such persons are reduced by the fortune of war to the state of prisoners, their conduct may justify a measure of revenge or punishment beyond what is authorised to be inflicted on ordinary captives. It is not common to put to death prisoners of war. They are detained in safe custody, till they are exchanged by cartel, for an equal number of our subjects who may be in the hands of the enemy, or till the conclusion of a peace restores them to their liberty: and in the mean time they are treated with humanity. Such is the condition of ordinary captives. If, however, the subjects of a foreign power engaged with us in warfare, shall, either after a hostile invasion of the country, or clandestinely insinuating themselves into its bosom, employ themselves when there, in stirring up the subjects to treason and rebellion against the sovereign or government of the country, it is evident that such persons, when made prisoners, ought not to be considered as ordinary captives of war. There is no principle of justice that can condemn the forfeiture of the lives of such base and treacherous enemies: but as the humane and liberal spirit of our constitution does not allow the taking away of life without a judicial sentence, so it is customary to subject such persons, though aliens, (and as such in the general case not amenable to our laws), to trial by court martial; when, the facts being substantiated by proof, that sentence is

is awarded which is justly due, to the atrocity of the crime. The legality of such procedure has been brought into question; but no doubt can exist upon the subject, when we attend to the principles of public law; and in fact this very practice is a noble proof of the generous and free spirit of the British constitution, which allows even to the basest of enemies the benefit of those safeguards of life and liberty which it assures to its natural-born subjects.

It has been questioned, whether the privilege of parliament prevents any officer who is a member of either house of parliament, from being put under arrest by his General, or tried by a court martial. This is a subject of difficult discussion. If the privileges of parliament were to be considered only in the light of immunities or benefits personal to the individual who claims them, it might with some reason be argued, that a member of parliament, by the acceptance of a military commission, subjects himself in all respects to the operation of the military law, and renounces his privilege of freedom from personal arrest; as it is competent to every person to renounce a benefit granted in favour of himself. But the privileges of parliament belong to the parliament as a body, and their dignity and independence being interested in maintaining them inviolate, it would thence seem to follow, that no individual member has a right to renounce any of those privileges, without consent of the whole body, of which he is a part. General utility, however, demands, that the ordinary course of justice should not be impeded in the prosecution of crimes: and therefore it is an understood point of law, that the privilege of parliament does not protect from arrest in cases of treason, felony, or breach of the peace. With respect to military crimes, the same political expediency demands that the course of justice should not be obstructed; but as the law has not expressly warranted the suspension of parliamentary privilege in such cases, the safest course seems to be, that previously to the arrest of any member, in order to trial for a military crime, notice should be given to the house of which he is a member, with a request that, for the sake of public justice, they should consent to renounce the privilege in that instance, in so far as the body of parliament is concerned, as the individual member is understood to have renounced it for himself, by the acceptance of a military commission.

It has likewise been a matter of doubt, whether an officer who is under a suspension from service for a limited time, and who shall in that interval commit any crime or offence in breach of the Mutiny-act or Articles of War, is subject to military law, and amenable to a court martial for his conduct: but this doubt may easily be solved on a moment's reflection. Suspension, though it has the effect of depriving an officer for the time of his rank and pay, and putting a stop to the ordinary discharge of his military duties, does not void his commission, annihilate the military character, or dissolve that connection which subsists between him and the Sovereign, of whom he is a servant. He retains his commission, and is at all times liable to a call to duty, which would take off the sentence. Suspension being a punishment, is regulated in its effects by the tenor of the sentence which inflicts it, and which, as it bears no more than the temporary deprivation

deprivation of rank and pay, must be limited in its consequence to those effects alone, leaving every other particular of the military character entire. The suspended officer remains, therefore, subject to the military law, and is punishable for every breach thereof committed during his suspension. He may therefore, in justification of his conduct, if he feels it impeached in the public opinion, demand an investigation by court martial; as happened in the case of Lord George Sackville, who, though at the time deprived of all military employ or command under his Majesty, yet, having entreated a public investigation of his conduct by court martial, was allowed that benefit, which it is manifest could not have been granted to him unless he had been considered as strictly amenable to martial law.*

We find the following correct statement respecting the duration of the jurisdiction of a court martial, and of the manner in which the power is now continued to its members:

‘As all procedure before a general court martial is held in virtue of the powers vested in his Majesty by the Mutiny-act, which requires an annual renewal: so, if it should happen that during the sitting of a court martial, and before a trial is finished, the Mutiny-act shall expire, it was formerly held necessary that the court should instantly cease its proceedings, and that after the passing of the new Mutiny-act it should be assembled *de novo*, under a new warrant from his Majesty, or the Commander in Chief empowered by him*.

‘But

‘* This happened during the trial of Sir [Lord] George Sackville in 1760. The court, after having made considerable progress in the trial, and heard the whole evidence in support of the prosecution and a part of that which was adduced in defence, was dissolved by the expiration of the Mutiny-act on the 24th of March 1760; but a new bill having passed both Houses of Parliament, and received the Royal assent the same day, the court met next morning under a new warrant from his Majesty. The Judge Advocate General informed the court, that he had received the following opinions of the Attorney and Solicitor General, to the questions which he had submitted to their consideration.

‘1. The members of the court and the Judge Advocate must be sworn again.

‘2. The charge must be exhibited *de novo*.

‘3. The witnesses to be produced on the new trial must be called upon to give their testimony *viva voce*. But in case the prosecutor and prisoner are willing to save time, as the proof is taken in writing, if the depositions are read over to the witnesses, and they are sworn and confirm the same, it is sufficient.

‘4. As this proceeding is a new trial, independent of the former, the court is at liberty to examine the witnesses at large.

‘5. The prosecutor is at liberty to produce new witnesses to support the charge.

‘These opinions evidently declared, that as the law then stood, the expiration of the Mutiny-act *pendente causa* had the effect of voiding

‘ But by the terms of the present Mutiny-act it is declared, that trials begun under a former act shall not be discontinued by its expiration, but that it shall be lawful to proceed to judgment as if the act was still in force under which the trial began.’

The succeeding passage shews how far the assistance of counsel is allowed, and where it is denied, to a prisoner before a court martial :

‘ Courts martial being in general composed of men of ability and discretion, but who, from the nature of their profession and general mode of life, are not to be supposed versant in legal subtleties, or abstract or sophistical distinctions; and the cases that come before them giving rise to few questions of law; it has hence been considered as founded in established usage, that counsel, or professional lawyers, are not allowed to interfere in their proceedings, or, by argument or pleading of any kind, to endeavour to influence either their interlocutory opinions or final judgment. This is a most wise and important regulation, nor can any thing tend more to secure the equity and wisdom of their decisions: for lawyers being in general as utterly ignorant of military law and practice, as the members of courts martial are of civil jurisprudence and the forms of the ordinary courts; so nothing could result from the collision of such warring and contradictory judgments, but inextricable embarrassment, or rash, ill-founded, and illegal decisions.

‘ But although it is thus wisely provided, that professional lawyers shall not interfere in the proceedings of courts martial, by pleading or argument of any kind, it is at the same time not unusual for a prisoner to request the court to allow him the aid of counsel to assist him in his defence, either in the proper conduct of his exculpatory proof, by suggesting fit questions to the witnesses, or in drawing up in writing a connected statement of his defence, and observations on the general import of the evidence. This benefit the court will never refuse to a prisoner; because, in those unhappy circumstances, the party may either want ability to do justice to his own cause, or may be deserted by that presence of mind which is necessary to command and bring into use such abilities as he may actually possess. In this situation, however, the prisoner’s counsel

voiding and annulling the whole of the antecedent procedure, though they gave it to be understood, that provided the parties consented, the former procedure might be recapitulated, to save the time of the court. The Judge Advocate therefore proposed to the prisoner, that the proceedings held under the former warrant should be taken as the proceedings of the new court martial; and that the depositions, being first read to and confirmed by the several witnesses upon oath, should be taken as good and valid evidence in the cause. The prisoner accepted the proposal; whereupon the depositions of the several witnesses were read to them respectively, after being sworn in due form, and they confirmed their several evidences. To remedy the inconvenience of this tedious and circuitous procedure, the alteration mentioned in the text has been made in the Mutiny-act.’

who properly understands his duty, will see that it is his part not to embarrass, to tease, or to perplex the court, but rather to conciliate their favour, by wisely regulating the conduct of his client; not to force the discordant and unsuitable axioms and rules of the civil courts upon a military tribunal, but candidly to instruct himself in that law which regulates their procedure, and accommodate himself to their forms and practice.'

The author's remarks on evidence are, in general, well-founded and judicious: but to the following observation we cannot give our assent:

'The necessity of circumstances requires in many cases, that the evidence of interested persons should be admitted: as, for example, in occult crimes, or where there is a penury of evidence. Thus, as before observed, the person who is robbed, ravished, or assaulted and beaten, is not disqualified from giving evidence: for otherwise the criminal might often escape detection and punishment. But such evidence is always of a suspicious nature, and is not *per se* sufficient for conviction.'

It is to be remembered that, in all public prosecutions, the King, as the supreme governor, whose peace is invaded by the perpetration of every crime, is the nominal and ostensible prosecutor; and in that situation the testimony of every person, who is not precluded by other regulations, is admissible:—the score of interest shall be insufficient to affect his competency. As to the *credit* which may be given to his evidence, the jury are not only the best but the sole judges. Certain it is, that many individuals have been convicted on the single unsupported testimony of the person who has been robbed, ravished, or assaulted and beaten;—which convictions have proceeded on the best of all reasons: since crimes, and those of the deepest dye, would in many instances go unpunished, if the party injured were not of himself sufficient to convict the wrong-doer, because men seldom transgress the laws in the presence of a multitude of witnesses. All that is expected or can be required, on these occasions, is that the testimony should be clear, explicit, consistent, and free from every imputation of prejudice.—In the next ensuing paragraph, Mr. Tytler appears to place (in our opinion, very unjustly,) the testimony of a party injured, on the same degraded level with that of an accomplice or *socius criminis*; whose evidence is frequently and necessarily (but we regret such a necessity) admitted for the detection of crimes.

In the same chapter, viz. that which treats on the comprehensive and important subject of Evidence, the author lays it down that 'persons convicted of felony or of perjury, though pardoned, cannot be received as witnesses: for the pardon, though

though it remit their punishment, cannot wash out their moral turpitude.' This assertion is too unqualified, because it makes no distinction between a statute-pardon, and the King's pardon; and many doubts have been entertained on this topic by some of the most distinguished characters in the profession. Chief Baron Gilbert, in his admirable book on the law of evidence*, says;

"One attainted of felony or cheating, after a general statute-pardon, is allowed to be a good witness, and so he is after burning in the hand, which amounts to a statute-pardon; for, by the statute-pardon, every body that is within that pardon is received into the society as a person of credit; and no man can be punished in his reputation when the public voice has discharged him. But whether the King's pardon discharged him, has been a question; for some hold that the King's pardon indeed takes away the punishment, but doth not remove the crime, and the turpitude of the crime always remains in the mind, and is ever a presumption against his evidence. Others hold the King's pardon restores the reputation; and the loss of reputation, being part of the punishment, the King's pardon, that can take off the whole punishment, must by necessary consequence restore the reputation; and the King, who is the great preserver of the life, liberty, and estate of his subject, is the best judge of the consequence of his pardon. So that if any person, guilty of those crimes by which credit is lost, be afterwards pardoned, it must be supposed that he hath repented of his fault, and hath returned to a better mind, and therefore that his evidence is not dangerous to the life, liberty, or estate of the subject; *and therefore the law is now held to be*, that on perjury at common law, the party pardoned may be a witness, because the King has a power to take off every part of the penalty, and so discern whether it is fit the offender should be restored to credibility: but if a man be indicted of perjury on the statute, the King cannot pardon, for the King is excluded and divested of that prerogative by the express words of the statute."

In his subsequent reasoning on this point, Mr. Tytler confounds the *competency* with the *credit* of a witness; and he omits to state the above satisfactory reason why the King's pardon of a person convicted of perjury on the statute does not restore his competency, namely, because the express words of the statute have deprived the King of that prerogative in this particular instance. Mr. Hargrave, in the second volume of his *Juridical Arguments*†, has dedicated a long and elaborate dissertation to this very subject; and he determines that a person convicted of perjury at common law, and who had stood in the pillory for his offence, was restored to his competency as a witness by the King's pardon.

After having given a detailed statement of the incidents belonging to a trial by court-martial in this country, the author

* P. 141. edit. iv. London, 1777.

† See M. Rev. N. S. vol. xxx. p. 166.

judiciously concludes his volume with the following contrasted account of the manner of bringing military offenders to trial, in France, before the revolution :

‘ It may not be improper to subjoin a short account of the forms observed in the trial of military offenders, by a *Conseil de Guerre*, or court martial, under the French establishment, previous to the late revolution ; a detail, which places in the strongest point of view the superiority of our criminal procedure in military matters, to that of a nation to whom the art of war has been more the object of systematic arrangement and regulation, than to most of the other nations of Europe.

‘ As soon as any military delinquent was apprehended and committed to prison, the captain to whose company he belonged was required to present a memorial to the governor of the place, setting forth the crime, and demanding that the prisoner should be brought to trial. The governor having granted his permission in writing upon the memorial, transmits it to the major of the garrison, who is to act in the character of prosecutor. The major orders the prisoner to be brought before him strictly guarded, and after reading to him the charges of which he is accused, he demands to hear what he has to urge in his defence, and puts to him whatever interrogatories he thinks proper ; taking down his answers in writing, which, after being read over to him, the prisoner must sign. The major then examines, in the prisoner's presence, such witnesses as can best inform of the matters of accusation ; the prisoner being at liberty, on just grounds, to object to their competency. The testimonies of the witnesses are then read over to him, and he is asked what he has to urge in answer to their evidence. The substance of his answer is then taken down in writing, and signed by him. This procedure, (which generally occupies but a few hours), being finished, the major reports to the governor, who orders a *Conseil de Guerre* to be assembled next morning. The court, which for capital trials must consist of at least seven officers, is composed of as many captains of the infantry regiments in garrison, if for the trial of an officer or soldier of foot, and of captains of cavalry, if for an officer or soldier of the cavalry. If there is not a sufficient number of captains, subalterns are allowed to supply their place, and even serjeants. The council being assembled in the governor's house, the governor officiates as president of the court, and the major as prosecutor, and the clerk reads over the whole procedure, before the prisoner is brought in. When this first reading is finished, the prisoner is brought before the court, and the whole must again be read over in his hearing. The president then asks if he has any thing further to state in his own defence, and previously thereto, he administers to him an oath, that he shall say nothing but the truth. His answer is written down by the major, and signed by the prisoner. The president then asks him, whether he objects to any of his judges ; and if his objection is sustained, the person objected to withdraws from the table. He is in the last place questioned whether he has any accomplices, and his answer is recorded. The prisoner is then sent back into confinement ;

gement; and the president reads the ordonnance or military law applying to the case; the major, as prosecutor, demanding a sentence agreeable to the law. A sheet of paper is then given to the youngest member of the court, who writes at the top of it his opinion and vote; folding down the paper upon the writing, and presenting it to the next in order of seniority, till all have written down their opinions; that of the president being accounted as two, when on the side of mercy, and as one, when for punishment. The president then opens the paper, and after arranging the votes, declares the opinion of the majority, and pronounces the sentence, which is written down by the major, and signed by all the members of the court; and immediately thereafter, it is announced to the prisoner, and must be carried into execution the same day; for neither the governor nor any other superior officer has a power of suspending or remitting a sentence once pronounced and signed. The record of the whole proceedings and sentence is sent, on the day following the execution, to the minister of war.

We have read the whole of this performance with pleasure, and from many parts have derived considerable information. Mr. Tytler writes with perspicuity, and manifests good sense and knowledge. With his account of the office and duties of a judge advocate, we were particularly gratified:—his professional situation of Depute (or Deputy) Judge Advocate, for Scotland, in course furnished him with authentic materials on this subject.

The appendix contains several amusing papers, particularly one on the subject of the Offices of High Constable and Marshall, and on the Powers of the Court of Chivalry; with another on the subject of the antient Assize of Arms, and Commission of Array.

ART. VII. *On the Nature and Occasion of Psalm and Prophecy.* Twelve Critical Dissertations. By James Hurd, D. D. Professor of Poetry in the University of Oxford. 8vo. pp. 268. 5s. Boards. Johnson. 1800.

IN this volume, as in most of Dr. Hurd's compositions, much ingenuity and acumen are displayed: but his fertile imagination often suggests fanciful ideas, which he fosters with care and matures with assiduity; until at last they become favorite hypotheses, or rather, in his own estimation, certain positions. Some years ago, he undertook to shew that the *דג* of the Hebrew writings always denotes the crocodile; and in the present work he labours to prove that *psalmody* and *prophecy* are so intimately connected with the season of the *first rain*, and the time of *night*, that they never happened at other periods, nor on other occasions. Though we must confess
that,

that, to us, this argument appears to be a paradox, yet it is supported with very plausible reasoning; and perhaps there are persons who will consider the system as not at all improbable. However this be, it is not our present purpose formally to combat it.

Dr. Hurd's divides his subject into twelve sections, or so many separate *Dissertations*; the contents of which we shall state to our readers in a summary manner.

In Dissert. 1. after having proposed the subject to be discussed, the author endeavours to shew 'that the season of the promulgation of prophecy, and of singing the psalm, was at a great public feast, common to the Hebrews with every other nation of the East: which feast was regulated by the return of the periodical rains of autumn.'

In Dissert. 2. he supposes that 'the performing of the psalm was by night, during illuminations;' and it was at the same time that 'the prophet was favoured with those divine communications which are termed the word of God.' Here the Professor descants on the mode of war among the Hebrews, on the voyage of St. Paul, and makes some shrewd observations on the psalm of Judith.

The 3d Dissert. contains remarks on the 68th psalm—on the choral dance performed after the slaughter of Goliath—on the thanksgiving of Hannah—on the dance of Jephthah's daughter—on the psalms of Deborah, and of Miriam; i. e. the song of Moses after the passage of the Red Sea. Here we cannot refrain from expressing our surprize at the author's translation of two Hebrew words, גָּדַל גָּדַל, rendered in our common version "He hath triumphed gloriously," but which Dr. H. says should be translated, "He hath overflowed, he hath overflowed."—We believe that he is the first who ever found the meaning of 'overflowing' in these two words of Moses.—Another curious instance of adapting phrases to a particular system occurs shortly afterward. The Hebrew historian simply says (Exod. ii. 5.) that "Pharaoh's daughter went down to the river to bathe, while her maids walked along the river's side:" but, says Dr. H. 'How coldly is the Hebrew word הלך here rendered walked along, or as the LXX. περιπαρουσα. We must therefore understand the divine writer, that when the daughter of Pharaoh went down to bathe at the river, her maidens went with her making procession upon the brink of the river. She undoubtedly was the leader of the chorus, which, in token of veneration, was to be conducted even unto the waters.' Spirits of Michaelis and Dathe! what would ye have thought of such an interpretation?—The Dissertation concludes

cludes with extracts from Homer and Hesiod, descriptive of dancing and singing.

In Dissertation 4th, Dr. Hurdís gives a new classification of the Psalms. ‘When viewed (says he) in a body, they naturally divide themselves into *three* distinct classes. In the *first* are those psalms which betray much apprehension from the enemy, and much *despair of the rain*. In the *second* are those warmer effusions of piety in which religion triumphs over doubt, and hope and confidence take place of despondency. These look *forward to the rain*, and the flight of the enemy.—In the *third* appear those raptures and extatic composition, which either exult at the certainty of their [whose?] deliverance by *the descent of the rain*, or triumph over the foe already dispersed by it.’—In the *first* of these classes, Dr. H. brings instances; particularly from the 42d, 43d, 80th, 83d, 84th, and 143d psalms.

In Dissert. 5th, the *second* class of psalms is considered, and equal ingenuity is employed to connect them with the *rainy* season. The author refers, in particular, to psalms 10, 11, 27, 37, 65, and 144.

The consideration of the *third* class occupies three Dissertations, the 6th, 7th, and 8th; in which the following psalms are brought to view in this order, viz. Dissert. 6, the psalms 29, 77, 85, 93, 95, 96, 104, 126, and 148.—Dissert. 7th, psalms 18, 23, 36, 46, 47, 48, 50, and 66.—That Dr. H. may have a fair hearing, and speak for himself, we shall lay before our readers the whole of what he says on the 18th psalm: both because it is written in his best style, (which is not always accurate and chaste,) and because it is not too long for our confined limits:

‘What remains of our purpose is to notice those rapturous compositions of the Psalmist, which are at the same time expressive of gratitude to God for *feeding* his people, and for *putting the enemy to flight* by the former rain.

‘A noble instance of this kind of *mixed ode*, and which, as boldly as any, unites the more powerful notes of *victory and triumph* with the softer tones of *thanksgiving for plenty*, is the *eighteenth* psalm. It commences with those very comprehensive words, ‘I will love thee, O Lord, my strength, the Lord is *my rock* and *my fortress*’—words which need no argument to explain them. For if David means to speak of God as his *rock*, he means to celebrate him as the *fountain of his waters*; if he addresses him as his *fortress*, he praises him as his *protector from the enemy*. The enemy had surrounded him, according to his own account, and in his distress he called upon the Lord. The Lord is said to have heard his voice *out of his temple*, and immediately makes his appearance in the former rain. “Then the earth shook and trembled: the foundations also of the mountains moved and were shaken, because

because he was wroth. *A smoke in his wrath went up, and fire from his mouth devoured, blazes were kindled by it.*" נחלים, I think, is in no instance *coals*, but always the *pure flame* of fire. When taken from the altar, it is particularly improper to render it *coals*, because the *fat* only of the victim was burnt, which could leave no *coal*. It may even be doubted whether the altar had any *ashes*; for the word שֶׁט, which we render *ashes*, is more properly the *melted fat* of the altar which is unconsumed, and which is said to be *poured out* as a liquid. If Ezek. x. 2. and 7. be compared, it will appear that נחלים is the *blaze* of fire only, without coal. It is the *blaze* of lightning, or the *blaze* of the hearth, or of the altar, or of the autumnal conflagration. But to proceed with the psalm. "He bowed the heavens also and came down, and there was darkness under his feet. And he rode upon a cherub and did fly, yea, he did fly upon the wings of the wind. He made darkness his secret chamber: his pavilion round about him, was dark waters, and thick clouds of the skies. From the splendour before him his thick clouds passed away, there was hail and blazes of fire. The Lord also thundered in the heavens, and the Most High uttered his voice; there was hail and blazes of fire. He also sent down his arrows and scattered them, and he showered lightnings and discomfited them. And rivers of waters were seen, and the foundations of the (buildings of the) world were made bare, at thy rebuke, O Lord, at the blast of the hurricane of thy displeasure." The latter feature of this tremendous description of the storm of the former rain, seems to require some little illustration. The prophet Ezekiel, speaking of the season when the enemy are put to flight by an overflowing rain and great hailstones, describes it as a time, when the mountains are thrown down, and the steep places and walls fall to the ground*. And that this ruin was the effect of the hurricane, in a great measure, and not of earthquake alone, is evident, when the prophet is commanded to reprove the confidence of Israel, under the image of a wall to be destroyed by the former rain. "There shall be an overflowing shower, and ye, O great hailstones, shall fall, and a stormy wind shall rend it. I will even rend it with a stormy wind in my fury; and there shall be an overflowing shower, in mine anger, and great hail-stones, in my fury, to consume it. So will I break down the wall, and bring it down to the ground, so that the foundation thereof shall be discovered†." This is precisely the same effect of the hurricane which the Psalmist notices, and he has expressed it in the very terms used by the prophet. If it be necessary to produce farther testimony of the fact, we may remember that when the sons and daughters of Job were keeping the feast at their elder brother's house, "there came a great wind from the wilderness and smote the four corners of the house, and it fell‡." Our Lord himself has drawn a simile from this dreadful consequence of the gust of the former rain. "The rain descended, and the floods came, and the winds blew, and beat

* Ezek. xxxix. 19, 20. 22.

† Ezek. xlii. 11. 13, 14.

‡ Job, i. 19.

upon that house, and great was the fall of it.*" We are therefore sensible, that David speaks of a natural and usual consequence of the former rain, when he says, "rivers of waters were seen, and the foundations of the world were made bare, at thy rebuke, O Lord, at the blast of the hurricane of thy displeasure."

' Having thus sublimely described the more dreadful consequences of the descent of the former rain, the Psalmist begins to dwell upon its happier effects. "He sent from above, he took me, *he drew me out of the many waters.*" The image of the infant lawgiver, preserved at the time of the overflowing of the Nile, and called by the daughter of Pharaoh *Moses* (מֹשֶׁה), "because," said she, "*I drew him* (נָשִׁיתִי) *out of the water,*" here very naturally takes possession of the mind of David. In a manner exquisitely judicious, he seizes her expression; and, though it has not been used by any other Hebrew writer, and is probably a Coptic term, applies it most happily to himself, by saying, "He sent from above, he took me, *he drew me* (נִשְׁנִי)," i. e. *he drew me after the manner of Moses* "out of the many waters." A bolder and more masterly stroke of genius and judgment, I know not where to find. He next proceeds to notice the flight of the foe. "He hath delivered me from my strong enemy—he hath brought me forth into enlargement.—The Lord hath rewarded me according to my righteousness.—For I have observed the processions of Jehovah, and have not apostatized from my God. Thou wilt save the afflicted people. Thou wilt cause my lamp to shine, O Jehovah; my God will enlighten my darkness. For by means of thee is the earth ploughed (בִּר אֶרֶץ נָדָד), and by means of God shall I leap singing (אֶדְלֵנָּה שׁוֹר)." Such I take to be the literal sense of that verse to which we have given a version so very faulty, "For by thee I have run through a troop, and by my God have I leaped over a wall." If the verb דָּלַנְּ be critically pursued, it will be found *always* to express the action of the dancer, and is *never* used to signify a military effort. The Psalmist adds, "The word of the Lord is tried, he is a buckler to all who trust in him. For who is God save the Lord, and who is a Rock save our God? It is God who girdeth me with strength, and giveth my procession perfectness. He maketh my feet like binds, and maketh me to be stationed on my high places. He teacheth my hands to war, so that a bow of steel is broken by mine arms." Surely nothing can be more natural and perspicuous than the whole of this passage. There is not a single expression which is not applicable to the season of the great rain, nor has the author any difficulty, when we understand that his *feet* are compared to the *binds*, because they *bound and leap* upon the high places.

' The psalm is concluded with a strain of lively triumph at the flight of the foe, because the rain is come. "*I will pursue mine enemies and overtake them, neither will I turn again till they are consumed. I will wound them that they shall not be able to rise, they*

* * Matth. vii. 27. The power of the former rain is here finely described in the original Greek, as well as in the parallel passage, Luke vi. 48, 49.'

shall fall under my feet. For thou shalt gird me with strength unto the battle, thou shalt cause to bow down those who are risen up against me. They shall cry aloud, but there shall be no Saviour; to Jehovah, but he shall not answer them. And *I will disperse them as the dust before the wind, as the mire of the streets will I empty them out.*" These are both images of the rain season; the one previous, the other subsequent to the fall of the first showers. "Thou shalt deliver me from *the strivings of the people*, thou shalt constitute me the head of the nations; a people I have not known shall serve me: as soon as they hear of me they shall obey me, the sons of the stranger shall submit themselves unto me. *The sons of the stranger shall waste away, and shall be afraid out of their lurking places.* The Lord liveth, and blessed be my *Rock*, and extolled be the God of my salvation. It is God that giveth me revenge, and *speaketh* the peoples under me." This is a strong, but an elegant and just expression, similar in force to "he shall *speake* peace." Here the word announces defeat, which in fact is the same as *speaking* peace. "*From the man of violence thou wilt deliver me.* Therefore will I celebrate thee among the nations, O Jehovah, and to thy name will I sing praise."

It will not be denied that uncommon fancy and ingenuity are displayed in this lively delineation: yet we think that it would be no hard task to shew that this psalm might have been written and chaunted at any other season of the year, than that of the autumnal rains. The whole is evidently a metaphorical picture, collected from various and heterogeneous occurrences, poetically blended together in the wild oriental manner: but in a strain equal, if not superior, to that of Pindar himself. In this point we perfectly agree with Dr. H.; and we are, moreover, much pleased with many of his new translations, not only of this psalm, but of several other passages of Hebrew Scripture which he has had occasion to quote. For example, we are of opinion with him, that גחלים, here at least, signifies not *coals* but *flakes of fire*. We cannot, however, think that the words אנפיקי מים are well rendered *rivers of waters*; nor can we by any means approve of דרכי יהוה being translated the *processions of Jehovah*:—much less of his version of v. 30. *For by means of thee is the earth ploughed, and by means of God I shall leap singing.* How this last sentence can be extracted from the original, we are truly at a loss to conceive: since, in the first place, it is clear that ארץ cannot here be a noun signifying *earth*, not only because the vowel points are annexed to it, but because it is followed by a masculine, whether גרר be an adjective, or a participle as Dr. H. makes it: for we are convinced that ארץ, *earth*, is always of the feminine gender, except when, as a collective, it denotes the *inhabitants of the earth*. 2dly, The parallelism requires a verb in the first comma, as well as in the 2d:—but ארלל is

confessedly a verb: so then must *לָרַץ*; and, indeed, a great number of MSS. have *לָרַץ* full; and all the ancient interpreters must have so read it in their copies. Lastly, it will be difficult to shew that *שׁוֹר* can possibly signify *singing*. We apprehend that it can mean nothing but a *wall*, as it was understood by all the antients;—and this, we think, naturally leads to the meaning of *גִּדְרוֹר*; which, with Dr. H. we allow to be badly rendered a *troop* in our common version. We believe that it means a *hedge, fence, or rampart*.—On the whole, we are clearly of opinion that the Doctor is not founded in this correction.

We could point out several similar instances, in which this ingenious author has indulged himself in fanciful and novel interpretations, repugnant to the genius of the Hebrew idiom and the rules of Hebrew grammar: but we must proceed to observe that the three remaining Dissertations relate to *Prophecy*, and are designed by the author to prove that prophecy, also, was delivered ‘at the season of the former rain’ from Abraham to Malachi!

Dr. Hurdís trusts that, in these Dissertations, he has shewn to the full conviction of his readers, what is the *nature* and what is the *occasion* of Psalm and Prophecy: ‘but let it not be imagined (he adds) that I have exhausted the subject, and suffered no proofs, which may favour my conclusions, to be kept in reserve.—I have planted a rock, upon which criticism may fairly rely, and I must leave it to the curious to build upon it the fabric of perfect knowledge by search. With safety I can pronounce, that labour thus applied will be well repaid; and that, when the Scriptures have been examined by the above standard of investigation, they will be found to be truly worthy of that Holy Spirit, which inspired their authors.—I will farther add, that the method here pursued is the only safe and effectual means of extracting from the Scriptures their genuine sense.’

Though these assertions are made with great confidence, we strongly suspect that they will disappoint the sagacious and sober critic. We fear that the rock, on which he is invited to rear his edifice, is not so solid as it appears to be in the eyes of Dr. H.; and indeed, on the contrary, that it will prove to be a heap of sand, which the breath of sound criticism will entirely disperse. It is, in our opinion, degrading to the Holy Spirit, to be confined to inspire psalmists or prophets at any one particular season, whether *rainy* or *dry*, whether by *night* or by *day*. Yet, in thus terminating our remarks, we must add that we have read this volume with pleasure; and that the ability displayed in it should recommend it to the lover of Hebrew literature and of biblical criticism.

ART. VIII. *Fabliaux or Tales, abridged from French Manuscripts of the XII. and XIII. Centuries, by M. Le Grand, selected and translated into English Verse, by the late Gregory Lewis Way, Esq. with a Preface, Notes, and Appendix, by G. Ellis, Esq. In two Vols. Vol. II. 4to. pp. 340. 16s. Boards. Faulder. 1800.*

AN anonymous prose translation of these tales was published in London in the year 1786, in 2 vols. 12mo *; and ten years afterward, the public was favoured with the first volume of the present version of them, also anonymous †. We now receive the second; from which we learn at once the name and the decease of the translator, but which is published with equal elegance by the editor, and accompanied by well-executed vignettes, cut in wood.

Though we were much pleased with the 1st vol. of these *Fabliaux* in English verse, we were not thoroughly satisfied with the mixture of old and new language, of obsolete and fine words, scattered here and there with those of a common narrative dialect. These small specks are less visible, we think, in the present volume; though here we have *thew'd, wertless, twimple, perquedry, atween, meynt, fleck'd, quail, bebest, singults, &c.* and, among words that are somewhat too elegant and modern, we have *consigned, culture, magnanimous, illustrious, aspiring, precipitate, sumptuous, patroness, &c.* derived neither from the Saxon nor the Romap, but all from the Latin.

In the continuation of the *Lay of the gray Palfrey*, by the editor, Mr. Ellis, (beginning p. 241.) we have few of these objections to make. We have indeed the terms *renovated, indignant, and urged*, "so English yet so Latin all the while," that we should have stared if we had found them in a tale written before the XVIIth century:—but consistency required Mr. E. to pursue the track which his friend had marked out.

The posthumous tale by Mr. Way, inserted in the appendix, and intitled *the Paradise of Love*, appears to us to be one of the best in the present volume. The description of this paradise, at which the poet arrives with great difficulty, is so animated and pleasing, that we must present it to our readers:

Onward I journey, and at length, behold,
Where a long avenue of fragrant trees
Lead to a palace over-laid with gold,
(Such potent duke or monarch well might please,)
And on its ~~roofs~~ that shone like glassy seas,
With well-wrought masonry of marble lin'd,
Floated amphibious fowl of every kind.

* See M. R. vol. 76.

† See M. R. vol. xxiii. N. S.

* There

- ‘ There swam they, all in pairs, the stately swan,
With many more than here rehearse I may,
Now gently sailing side by side, anon
Dashing, in love's disport, the glittering spray :
Beneath, the finny race in couples lay :
Birds, fishes, beasts, all wedded ; save alone
One turtle on a wither'd branch made moan.
- ‘ The portal of the palace right before,
Two stately columns rose, of crystal wrought,
A snow-white marble image either bore,
With hidden powers of Cupid's magick fraught :
For now one seem'd to kiss, then th'other sought,
With interchange of sweet caress and smile,
To pay that back she had received erewhile.
- ‘ Much was I wondering at so strange a sight,
When back the double gates recoiling flew ;
And the full glories of Love's mansion bright
Burst forth at once on my astonish'd view,
‘ Lo Paradise !’ I cried with rapture new,
No ! were I hundred-tongued, those tongues would fail
To give full form and utterance to the tale.
- ‘ All, most by mortals sought, unchanging joy,
Unrival'd Beauty, ever harbour'd there :
Soft lays of love, perfumes that never cloy,
With hum of ceaseless kisses, fill'd the air ;
Enthron'd in flowers, the monarch debonnaire
Look'd round on all, and whom he look'd on, blest ;
And the whole year was one continual feast.
- ‘ As when, in centre of the firmament,
The peerless sun stands forth with dazzling sheen,
That mortal folk are with the light yblent ;
Such was the godhead's sovereign beauty seen,
Encompass'd with his court ; of these I ween
Were many a pair of lovers scatter'd round,
That from his fostering look protection found.
- ‘ With his fair mate was many a lover there,
In speechless dalliance lost and mute delight ;
And ever as the monarch eyed a pair,
It seem'd his look spoke pleasure at the sight ;
Then would he shoot such thrilling arrows bright
Through their faint frame, the subtle fire would rove,
And waken new necessity to love.’
- ‘ All here was bliss.’

At the end of this agreeable and elegant publication, Mr. Ellis has inserted the *Lay of Lawnsfal*, written in old French during the reign of St. Louis, and translated by Thomas Chestre, who is supposed to have lived in the reign of Henry VI. Mr. E. has given it in its antique dress : had he

modernized it in the manner in which Chaucer has been improved by Dryden and Pope, it would have been a valuable present to the lovers of our old national poetry : but it is now *too far gone* to be read with pleasure, even with the assistance of Mr. Ellis's glossary and minute explanations ; and if a reader, by digging and delving, should arrive at the meaning of so many obsolete words, the Metre will be still more difficult to acquire, in any tuneable degree. Perhaps, by *longs* and *shorts*, where there is a want or a redundancy of syllables, something like a cantilena may be obtained. Every line requires three longs or accents : but all the rest are short, and must be hurried over as fast as possible. One *short* syllable, at least, is necessary before the first *long* : but we have often two, and sometimes three or four, 'ere an accent can be given to any word in a verse, as it is called. When that is once known, however, the rest of the syllables will arrange themselves.

We learn that this Lay has been inserted in its primitive state by the present editor, in order to fulfill a wish formed by his friend Mr. Way, of exhibiting 'a specimen of the poetical style which prevailed in England, at the time when many of the French Fabliaux were composed ;' and it must be allowed that Mr. Ellis has in every respect performed, with pious zeal, the editorial task assigned to him by his deceased friend ; of whom, in the appendix, he has drawn a very amiable and interesting picture. He has also embellished the publication with critical remarks, which are the genuine offspring of reading, reflection, and good taste.

This volume contains 12 or 14 tales ; and the notes continue to afford much information respecting this species of writing.

ART. IX. *Observations on the Manners and Customs of the Egyptians, the overflowing of the Nile and its Effects ; with Remarks on the Plague, and other Subjects. Written during a Residence of twelve Years in Cairo and its Vicinity. By John Antes, Esq. of Fulneck, in Yorkshire. Illustrated with a Map of Egypt.* 4to. pp. 139. 10s. 6d. Boards. Stockdale. 1800 *.

IT has lately been obviously remarked that the circumstances of the times have added a peculiar interest to that which was ever felt respecting the singular country of Egypt. To the lovers of antient history and antiquities, it has long proved an inexhaustible field of curiosity and conjecture. We now regard it as a theatre on which our national glory has received,

* This work has accidentally lain unnoticed in a heap of other books, or it would have been sooner announced to our readers.

a vast

a vast accession; and, as our successes in that country have greatly contributed to the termination of the momentous contest with France, popular attention must be strongly excited towards it. The accounts of travellers in Egypt have hitherto proved uncertain and unsatisfactory; and most of the recent publications of this nature have tended to discredit each other: but we have here before us, in a plain narrative, the observations of a person who had resided long enough in the country to form a correct judgment on different objects of inquiry, and who seems to write without bias to any of the hypothetical notions which have perverted the evidence of other writers.

After having noticed the facility of acquiring information in European countries, Mr. Antes says;

‘ But this is quite otherwise in Egypt. Travellers there, though they may be otherwise very well informed, and may have all the advantages of learning, commonly know nothing of the language of the country, which is Arabic. They must, therefore, address themselves to an European to be their interpreter, or hire a Greek or an Armenian for that purpose. These latter are, upon the whole, not sensible of the importance of giving always a correct and satisfactory answer: they are, perhaps, at the same time, as well as many of the Europeans, ignorant where to apply for proper information. As long as I was at Grand Cairo, I was not acquainted with any Europeans residing there, who were furnished with learning sufficient for this purpose; though otherwise well informed for their sphere of life. All the information they could give was what they had gathered in the narrow circle of their acquaintance. Supposing even, that a few merchants, in the way of commerce, had formed an acquaintance with some one or other of the most learned in that country, as I also had done; yet these people are either ill-tempered, or unwilling to inform Europeans of the truth, or such intolerable boasters, magnifying every thing which they think may add the least to their honour, that very little dependance can be had upon their information; and, indeed, having by long experience learned to know the disposition of most of the Arabs in this particular, it has made me mistrust the whole account of their ancient and modern history. There are still Arabic writers of chronicles at Grand Cairo, who will give the most boasting accounts of a trifling and insignificant fight between the Egyptian Beys, where, perhaps, five or six out of several thousands were killed; which, I am sure, if they should be read some hundred years hence, would appear to be greater battles than any one fought between the King of Prussia and the Austrians in the seven years war.’

Some passages are quoted from M. Volney and M. Savary, which are clearly proved to be incorrect; and indeed the general credit of these travellers is strongly attacked by Mr. Antes. Of Mr. Bruce he speaks more respectfully; and he appears to consider that traveller's account of Abyssinia as authentic.

Mr. Antes confirms the facts respecting the *Psylli*, or Serpent-eaters, without attempting to account for their power over poisonous reptiles. He suggests, however, that they may be acquainted with some odorous substance of which serpents are fond, as cats are of valerian, and rats and mice of oil of rhodium; and that, by carrying this inticement about their persons, they may attract the animals. He states, with confidence, that these men are not afraid of the bites of serpents and scorpions; and that he has often seen them bitten without danger, when dogs and cats have expired in a short time under the wounds of the same reptiles:

The author next describes the routes of the Caravans to Nubia, and to the interior parts of Africa, from which a slave-trade is carried on with Cairo.

The plague, Mr. Antes thinks, is generally imported into Egypt from Smyrna or Constantinople:

‘ During the twelve years of my abode in that country, which was from the 13th of January, 1770, to the 26th of the same month, 1782, the plague was three times there. At my arrival at Alexandria there were symptoms of it, which soon afterwards spread, and it became very violent there, as well as at Rosetta, and other parts of Lower Egypt: but, besides a very few accidents, it did not reach Cairo so as to become general. But the next year, 1771, it was brought again into the country by some Mameluks from Constantinople, and raged with great violence, as well at Grand Cairo, as in all the Lower, and in some parts of Upper Egypt: but, as the Russian war broke out at that time, by which all communication between Constantinople and Smyrna, in Turkish bottoms, was entirely cut off, the plague was kept perfectly out of the country during that period. At the same time there was but little of it at Constantinople; but, mean while, it visited Bagdad and Bussora, where it had not been before for time immemorial. In the year 1781, it was brought, first to Alexandria, thence to Rosetta, and so on to Grand Cairo, by some Jews, who, having bought a chest of old clothes at Smyrna, where it raged very furiously at that time, brought it to Egypt to be sold at Grand Cairo. As soon as this chest was opened at the three different custom-houses, the infection immediately took place, and spread so as to become general in a very short time. That the infection will remain in such articles for years together, and be conveyed to any part, is a well known fact. In this way the plague once remained inactive in Cairo a whole year. The fact was this: a Damascene merchant had two black women slaves who died of the plague; he very imprudently had their clothes locked up in a chest, without first airing them. About the same time of the following year, he bought two new black slaves, and dressed them in these clothes, by which they immediately caught the infection; and afterwards spread it through the whole country.’

Concerning the effect of the warm weather in stopping the progress of the plague, we are here told:

‘ The

Antes en the Manners and Customs of the Egyptians.

‘ The natural cause of the plague ceasing about June in Egypt is the great heat ; Fahrenheit’s thermometer, at that time, stands generally at 90 or 92 degrees in the shade ; and that this must be the cause, will appear by the following fact. In the year 1781, the plague broke out about the middle of April, and increased with such dity and virulence, that sometimes one thousand people died in one day at Grand Cairo ; but, about the middle of May, the plague shifted to the east, which occasioned a few days violent heat, the consequence of which it immediately diminished ; and though the weather became again cooler, the plague did not leave the country before the end of June, yet it never increased to the degree as before, but continued dwindling away, till it ceased entirely when the summer heat became regular. It has always been observed in Egypt, that a great degree of heat, if even but for a few days, has this effect ; but this time was very remarkable. It has several times fallen under my own immediate observation, that vessels coming to Alexandria from other parts of Turkey, with many people on board affected by the plague, after that period, but the infection did not take ; and even the patients who came on shore infected with the disorder frequently recovered. These are facts which may all be proved at Grand Cairo, or any part of Egypt, and they seem to contradict entirely that notion which I have observed in many authors, viz. that the plague was nothing but a putrid fever in the highest degree ; but a great degree of heat would rather increase than diminish a putrid fever. Observing this effect of natural heat, I sometimes thought whether the same degree of artificial heat, to occasion a constant perspiration, might not be of more benefit even to those infected by the disorder, than heating medicines applied for the same purpose ? But, as I make no pretensions to medical knowledge, I will leave this to others to determine.’

On the means of prevention, we meet with the following curious fact, which confirms the jovial prophylactic plan of our countryman, Dr. Hodges :

‘ The Friars de Propaganda Fide, at Grand Cairo, also perform quarantine ; but they always appoint two of their number to visit the sick, and to administer extreme unction to those of their persuasion who are dying : and it happens but seldom, that any of these visitants die of the plague, which constantly inclines them to make a mock of it. The only precaution they take is, to drink a great quantity of brandy, as much, and often more than they well can bear, without dishonouring their profession. A Venetian doctor, long resident at Grand Cairo, never performed quarantine, and even visited people who were sick of the plague, but never caught it himself. His appetite was likewise to take so much brandy, that he was seldom affected by its effects : perhaps the increase of perspiration, occasioned by the use of the liquor, might be the cause. It seems that by a constant supply, in this case, what a great degree of heat would naturally do. A timorous person, who is in constant fear and apprehension, will be much more liable to have it. It is well known that fear, by the contrary way, and will prevent or obstruct perspiration.’

Respectfully

Respecting the *origin* of the plague, Mr. Antes does not seem to have formed any clear ideas : but, as he very modestly disclaims all pretensions to medical knowledge, we shall pass over this part of his work without animadversion.

The letters on the overflowing of the Nile contain many sensible remarks, but offer nothing which deserves particularly to be extracted.

Of the climate of Egypt, Mr. Antes gives a favourable account. With regard to the blindness which it is stated to produce, he remarks :

‘ By all these observations, and the experience of many Europeans who have from time to time resided in Egypt, it appears to be one of the most healthy countries in the universe. It is true there is a very great number of blind people in this country, and the climate seems to be pernicious to the eyes. I also observed, that putrid and bilious fevers were common in spring among some classes of people, particularly in May and June ; but I think that very good reasons may be given for both. People of a gross habit, and full of humours, are often troubled with sore eyes ; and indeed the bright and powerful sun, the excessive dry air in some parts of the year, the fine sand and dust during the southerly winds, cannot but be detrimental to the eye sight ; but we may, however, by a little precaution, keep quite free from such disorders. Most of the blind people are of the lower class, and from their manner of living it may be easily accounted for. The soil of Egypt is every where very much impregnated with saline particles of various kinds, such as saltpetre, common salt, and one kind peculiar to that country, called by the natives, *natron*, which is exceedingly sharp. The country being so very dry, is seldom quite free from dust. The dew that falls during the overflowing of the river is pernicious to the eyes, as mentioned before. Now the lower class of people do not use the least precaution ; they are often seen asleep in the open fields or streets, mostly naked, in the burning sun, quite covered with dust ; they do the same in the night in the dew. It is therefore but a natural consequence that they should be afflicted with sore eyes, and other disorders ; and it is much to be wondered at that they have them not in a greater degree.’

These practical observations are followed by some conjectures (of little value) respecting the ascent of vapour, and its formation into clouds.

Mr. Antes had the misfortune of experiencing the oppressive nature of the government of Egypt, in his own person. He fell into the merciless hands of Osman Bey, in the neighbourhood of Cairo, while he was amusing himself with his fowling-piece ; and he actually underwent the bastinado in resisting the extortions of this despot and his guards. As the whole account, though very interesting, would occupy too much space,

space, we shall extract that part which relates immediately to the author's feelings under this horrible punishment :

‘ In about half an hour the Bey arrived with all his men, and lighted flambeaus before him ; he alighted, went up stairs into a room, sat down in a corner, and all his people placed themselves in a circle round him. This done, I was sent for, my chain was taken off, and I led up by two fellows. On the way up, I heard the instrument used for the bastinado rattle, and knew from that what I had to expect. Upon entering, I found a small neat Persian carpet spread for me, which was in fact a piece of civility, for the common people, when about to receive the bastinado, are thrown on the ground. The Bey again asked me, who I was ? *Ans.* An Englishman. 2. What is your business ? *Ans.* I live by what God sends (an usual Arabian phrase). He then said, throw him down : when I asked what I had done. How, you dog, answered he, dare you ask what you have done ? Throw him down. The servant then threw me upon my belly, the usual position upon such occasions, that when the legs are raised up, the soles of the feet may be horizontal. They then brought a strong staff about six feet long, with a piece of an iron chain fixed to it with both ends : this chain they throw round both feet above the ancles, and then twist them together, and two fellows on each side, provided with what they call a corbage, hold up the soles of the feet by means of the stick, and so wait for their master's orders. When they had placed me in this position, an officer came and whispered into my ear, do not suffer yourself to be beaten, give him a thousand dollars and he will let you go. I reflected, that should I now offer any thing, he would probably send one of his men with me to receive it ; that then I should be obliged to open my strong chest, in which I kept not only my own, but a great deal of money belonging to others, which I had in trust, having received it in payment for goods sold for other merchants. The whole of this would in all probability have been taken away at the same time ; and as I could not think of involving others in my misfortunes, I said, *mafiah!* that is, *no money!* upon which he immediately ordered them to begin, which they did, at first, however moderately. But I at once gave myself up for lost, well knowing that my life only depended upon the caprice of a brute in human shape ; and having heard and seen so many examples of unrelenting cruelty, I could not expect to fare better than others had done before me. I had, therefore, nothing left but to cast myself upon the mercy of God, commending my soul to him ; and indeed I must in gratitude confess, that I experienced his support most powerfully ; so that all fear of death was taken from me, and if I could have bought my life for one half-penny, I should, I believe, have hesitated to accept the offer. After they had continued beating me for some time, the officer thinking, probably, I might by this time have become more tractable, again whispered into my ear the word *money* ; but now the sum was doubled. I presently answered *mafiah!* They then laid on more roughly, and every stroke felt like the application of a red-hot poker. At last the same officer, thinking that
though

though I had no money, I might have some fine goods, whispered again something to that effect. , As I knew that elegant English fire-arms will often take their fancy, even more than money, and happened to have a neat blunderbuss, richly mounted in silver, value about 20l., I offered him that, as I could have got at it without opening my strong chest. When the Bey observed me talking with the officer, he asked him what I had said; the officer lifting up his finger, answered with a sneer, Bir Corabina! that is, one blunderbuss. Upon which the Bey said, Ettrup il kelp! that is, beat the dog. Now they began to lay on with all their might. At first the pain was excruciating, but after some time my feeling grew numb, and it was like beating a bag of wool: when at last he saw that no money was offered, he began to think that I might be poor; and as I had, however, done nothing to deserve punishment, he at last said, Saibu! that is, let him go. Upon which they loosened my feet; I was obliged to walk down again into my prison, and the chain was again put about my neck.

The volume concludes with speculations on the commercial advantages which Egypt might derive from its situation, under the direction of an intelligent government. These, however, are now of little importance, because the terms of pacification between England and France have condemned that fine country to remain in a state of barbarism. How unfortunate is it that the mutual jealousy of two great rival powers should thus oppose the general interests of mankind; which would be so highly benefited by the civilization and commercial prosperity of Egypt, as an independent State!

ART. X. *A Treatise on the Chemical History and Medical Powers of some of the most celebrated Mineral Waters; with practical Remarks on the Aqueous Regimen. To which are added, Observations on the Use of cold and warm bathing.* By William Saunders, M. D. F. R. S. &c. 8vo. pp. 438. 8s. Boards, W. Phillips. 1800.

As a good book on the properties of mineral waters, adapted to the present state of chemistry and of medical opinions, has been greatly wanted, we are happy in seeing this *desideratum* so well supplied in the volume before us; which will furnish much useful information to the faculty, and must add to the extensive and well-earned reputation of its author. Mr. Kirwan's treatise on this subject, though highly valuable to chemists, was not calculated for practical physicians. In the present publication, both these objects are united; and the principal facts are detailed with a degree of correctness and perspicuity, which will render them accessible to the majority of the profession.

The volume opens with a view of the properties of water, considered as the basis of animal fluids, as well as of mineral springs; and the foreign contents of mineral waters are next discussed. These chapters contain facts generally known and admitted; and, therefore, though useful to the student, they furnish no room for extracts or remarks.

The author next treats on the properties of water, as it is obtained from springs, rivers, &c. and afterward enters into the consideration of particular mineral waters. The order in which Dr. Saunders treats of them consists in beginning with the most simple degree of foreign impregnation, and proceeding to the most complicated.

Malvern Spring is first noticed, as the head of the remarkably pure waters. After having enumerated its medical uses, from Dr. Wall's publication on the subject, Dr. Saunders informs us that the greater part of its good effects are, probably to be attributed to its purity, as water. It is much employed as an external application, in inflammations of the eyes, scrophulous sores, and cutaneous eruptions.

St. Winifred's Well, at Holywell in Flintshire, is celebrated for similar properties.

The *Bristol Hotwell* is described as 'a pure, warm, slightly acidulated spring.' The principal medical effects of this water, also, are attributed to its purity: but, respecting its use in pulmonary consumption, Dr. Saunders observes;

'Much difference of opinion has arisen on the supposed virtues of Bristol water in this disease, and from the number of unsuccessful cases among those that frequent this place, many have been disposed to deny any peculiar power to this, superior to any simple water. It is not easy to determine how much may be owing to the favourable situation and mild temperate climate which Bristol enjoys; but it cannot be doubted that the Hotwell water, though by no means a cure for consumption, alleviates some of the most harrassing symptoms in this formidable disease. It is particularly efficacious in moderating the thirst, the dry burning heat of the hands and feet, the partial night sweats, and the symptoms that are peculiarly hectic; and thus in the earlier stages of phthisis, it may materially contribute to a complete re-establishment of health; and even in the latter periods it may considerably relieve, when the prospect of a cure has long been doubtful, if not hopeless. We are not yet fully acquainted with the medical virtues which we may expect from the union of a small quantity of carbonic acid with water; but from comparing the effects resulting from this gaseous acid when in a larger dose, and giving very sensible properties to the water with which it is combined, there appears to be some reason for attributing to this substance, a part at least of the virtues of Bristol water.'

Matlock Water, which is another of the pure and tepid kind, is chiefly useful as a bath.

Of the celebrated springs at *Buxton*, Dr. Saunders gives the following general analysis ;

‘ The general result therefore of the analysis of Buxton water is the following : it is a remarkably pure water, and possesses no peculiar sensible properties except that of a higher temperature than all the adjacent springs, and as this circumstance is invariable in every season, the source of the heat depends on some internal cause, in which it differs from the cold natural waters. The little solid matter which it contains is such as is found in every common spring, and is of the most inactive kind. It holds in solution, however, a small quantity of azotic gas, as this air is very imperfectly soluble in water. In this respect only does the chemical analysis of Buxton exhibit any thing different from the pump water in common use.’

We shall extract the account given of the medical properties of these waters, both as important in itself, and as a specimen of the judicious manner in which Dr. S. avails himself of the labours of preceding writers on this subject :

‘ Buxton water is found of considerable service in a number of symptoms of defective digestion and derangement of the alimentary organs, consequent to a life of high indulgence and intemperance. A judicious use of this simple remedy will often relieve the distressing symptoms of heart-burn, flatulency, and sickness ; and, if persevered in, will encrease the appetite, render the secretions more regular, and improve the general health and spirits that are so intimately connected with the functions of the digestive organs. A large number of the invalids that resort to Buxton are of this class. The water appears to produce various effects on the bowels. Not unfrequently a spontaneous diarrhœa is the consequence of its use for some days, and this is always salutary ; but it is more common, especially in habits where the action of the bowels is naturally sluggish, for costiveness to come on during a course of the water, which must be remedied by aperient medicines. Another class of disorders much relieved by the internal use of Buxton water, is the painful complaints of the kidneys and bladder connected with the formation of calculûs. The pain of these affections is much relieved by the water, and its use as a bath will often assist its employment as an internal medicine. The comparative purity of the water may here be a principal cause of its efficacy. Buxton has been much recommended in various cases of gout, especially where the high inflammation of particular limbs has gone off, and where it has left either a number of dyspeptic symptoms, or a rigidity or impaired action in the seat of the disease. In this disorder, however, the use of Buxton water seems to me to be very ambiguous, and seldom admissible. We are advised by Dr. Denman always to add some aromatic tincture to the water taken in these cases, without which it would not be safe or adviseable : but it appears to me generally hazardous to employ such means of qualifying the medicinal powers of a mineral water, as highly apt to bring on a habit of accustoming the stomach to the excessive stimulus of ardent spirit, under the insidious form of

of a stomachic medicine, and can hardly fail of doing much more injury than will be counteracted by the good produced by any mineral water so exhibited. Indeed I think it may be laid down as a general rule, that the only additions which it is advisable to use, are, either that of mere temperature, which is often necessary in giving the cold medicinal waters to delicate stomachs, or that of an additional quantity of any of the natural ingredients, as for instance where a purging chalybeate may be strengthened in its operation by some vitriolated magnesia or soda. Sometimes, however, the stomach of a gouty patient will bear the Buxton water in its simple state, and will derive much advantage from its gradual action on the general habit: As an external application in gout, Buxton water is sometimes found of service, though in general the warmer temperature of that of Bath is the best fitted to restore healthy functions to parts so diseased.'—

'The doses prescribed by the earlier practitioners were, according to the custom of former times, much more abundant than are employed at present, and would make the modern directions quite superfluous. Now, however, it is considered as a full course to take two glasses of about a third of a pint each before breakfast; interposing between the two a little gentle exercise, and to repeat the same quantity again between breakfast and dinner. It is seldom taken medicinally in the evening.'

A copious account is given of the chemical analysis of the Bath water. The general result is thus mentioned:

'From the various chemical investigations that have been mentioned, we may form this general conclusion concerning the composition of Bath water; that it contains a good deal of calcareous salts, which render it hard and unfit for domestic purposes; that it holds in solution but little, if any, neutral alkaline salts, and therefore is scarcely saline; that it is in a very slight degree impregnated with carbonic acid; in a still slighter with iron, and as it should appear, only when hot from the spring; and that it holds suspended a small portion of siliceous earth, which will deserve notice from the chemist, as a curious, though not a singular occurrence. The precise quantities of all these ingredients it is not easy to determine, on account of the difference in the result of experiments made by different persons, none of which are at all improbable, as there are many waters that contain less foreign matter than the lowest estimation, and more than the highest.

'Perhaps we shall make a pretty near approximation to the truth, if we reckon a gallon of the King's Bath water to contain, for its gaseous contents, about 8 cubic inches of carbonic acid, and the same quantity of air nearly azotic: for the solid, about 80 grains, in the whole of which, perhaps one half may be sulphat and muriat of soda, 15½ grains of siliceous earth, and the remainder selenite, carbonat of lime, and a very minute portion, scarcely appreciable, of oxyd of iron.'

Dr. Saunders thinks that one of the most important uses of Bath-water is its external application; and that its effects, in this

this respect, do not differ from those of common waters heated to the same temperature.—Respecting the *internal* use of this spring, the author says ;

‘ The general indications of the propriety of using this medicinal water are in those cases where a gentle, gradual, and permanent stimulus is required, and where there is little to be feared from the sudden and transient heat, and increase of pulse that so often attend its exhibition. Bath water may certainly be considered as a chalybeate, in which the iron is very small in quantity, but in a highly active form ; and the degree of temperature is in itself a stimulus, often of considerable powers.’

For a more particular view of the diseases in which the Bath-water is serviceable, we must refer our readers to the book.

Dr. Saunders now proceeds to consider the *Simple Saline* waters. Of these, the *Sedlitz* or *Seydewitz* water is the first mentioned. Among other substances, it is strongly impregnated with vitriolated magnesia, or Epsom salt, to which it principally owes its medical properties. It is an active purgative, and is useful in bilious and hypochondriacal disorders.—The *Epsom* water is another of this class, but very mild.

Dr. Saunders next treats of *Sea-water*, the properties of which are too well-known to require any particular notice here.

Seltzer spring is described as saline, slightly alkaline, and highly acidulated with carbonic acid. The effects of this fashionable beverage are known, we suppose, to most of our well-informed readers.

Chalybeate Waters form the next class : but there is so little difference among those of this description, in our country, that they scarcely admit of more than a chemical discrimination.

The *Spa* and *Pyrmont* waters are noticed with distinction, as highly carbonated Chalybeates.

Those waters which contain a portion of purgative salt, with carbonic acid and iron, are next mentioned : such as *Cheltenham* and *Scarborough*, in this country ; and they are said to be chiefly useful in the cure of glandular obstructions, especially those which affect the liver, and the chylopoetic viscera.—The thermal springs of *Vichy*, in France, and *Carlsbad* in Bohemia, are somewhat similar in their composition. Of the latter, the author says :

‘ The general result of the analysis of these waters therefore is, that they are all considerably complex in their chemical nature, and contain several of the more active of those principles which appear to give medical powers to any natural water. They are all more or less thermal, and possess a heat several degrees higher than the animal temperature. They are all acidulated with carbonic acid, but at the same

same time contain a very notable portion of soda and calcareous earth: they besides hold in solution a sensible quantity of Glauber's salt. With regard to that of the iron, it is probably very minute, and not more than is contained in Bath water, as the circumstances of precipitation with galls appear to be very similar in each; but from the greater degree of temperature, the Caroline water will probably make a stronger chalybeate impression on the taste than even that of Bath.

From a review of the composition of the Caroline water, compared with that of other medicinal springs, we might expect it to produce powerful and various effects upon the body, when taken internally, and this is actually the case, as appears from the best authorities. Its most obvious operation is that of exciting the action of the bowels, which it does in almost all cases when a considerable dose is taken, and it proves a purgative of great strength, and very speedy in its action.*

These waters are celebrated in many diseases; particularly in nephritic and calculous complaints.

The *Hartfell* water is selected as a specimen of the vitriolated Chalybeates, in which iron is held in union with the sulphuric acid.

The last class of mineral springs is the *Sulphureous*.

Of *Harrogate* water, the most celebrated of these, we need remark little, as we reviewed Dr. Garnett's account of it a few years ago*.

Moffat water is chiefly useful as a diuretic.

The thermal springs of *Aix la Chapelle* and *Borset*, also of this class, are described from Dr. Lucas's work.

The waters of *Barege* are said to be chiefly useful as a bath.

At the close of this part of the work, the composition of the Chalybeate waters is exhibited in a synoptical table.

In the fifth chapter, Dr. Saunders treats of the internal use of water as an article of diet, and as a medicine. We here meet with several judicious observations on its utility in dyspeptic complaints, which merit the attention of practitioners. The author seems to think that the principal efficacy of mineral waters, taken internally, depends on the quantity of this fluid which the patient is induced to swallow, by the reputation of particular springs; or, in the words of an old poem,

"The water's water: be thyself thy friend."

Chapter VI. contains observations on the external use of water; which are very just, but afford nothing new.

The volume closes with some general reflections on the effects of mineral waters, in which the superiority of *warm* over *cold* Chalybeates is particularly pointed out.

* See Vol. xi. p. 460.

We can recommend this work to the notice of a large body of useful men; viz. practitioners in the country, who have neither leisure nor opportunities for keeping pace, in their chemical reading, with modern improvements in that science; and who will here find sufficient information to decide them in recommending the choice of watering places to their patients,—at least to those who cannot be induced to drink sufficient water at home.

ART. XI. *Dissertations on Inflammation.* By John Burns, Surgeon in Glasgow. 2 Vols. 8vo. 14s. Boards. Longman and Rees. 1800.

IN some publications of the present day, we have observed, with regret, a tendency to that unnecessary multiplication of language which the French term *verbiage*; and we are sorry to add that the work before us affords another instance of this style of writing. Mr. Burns indeed informs us that he writes for students, who have all their knowledge to acquire on this subject: but we cannot perceive the necessity of beginning an elementary treatise on inflammation, as he has done, by telling the reader that *the objects of natural history are divided into the animal, vegetable, and mineral kingdoms*. The commencement of Cæsar's Commentaries, "*Gallia est omnis divisa in partes tres*," would have been nearly as appropriate an exordium; or, if the author had wished to begin at a still greater distance, he might have chosen the first verse of the first chapter of the book of Genesis, with equal propriety.

From this remote deduction of the subject, we augured unfavourably of Mr. Burns's Preliminary Dissertation on some Laws of the Animal Oeconomy; which is, indeed, too short to serve instead of a system of Physiology, and too long for an Introduction to the rest of the work.—Mr. B. has attempted to revive the obsolete doctrine of an *Anima Vegetans*, in this Introduction, without seeming to be aware of its antiquity. He is not deficient in ingenuity, but it is enveloped in a cloud of words. He expresses the existence of disease by the term *action*; and, after some general reasoning on the progress and terminations of morbid actions, he presents us with a new nosological arrangement, which has the defect of generalizing too much. The whole preliminary dissertation is a specimen of the art of disguising common notions, in vague but specious language.—We should have gladly inserted his *Summary of the Laws of Action*, had it not extended to the enormous length of forty-two pages.

We come, at length, about the middle of the first volume,

“*Tante malis erat,*” —

to the *definition* and *division* of Inflammation. The definition, or rather description, differs little from that of Dr. Cullen; the division consists of *inflammatio valida*, and *inflammatio debilis*; the varieties of which, the author says, are *active* and *passive* inflammation. We confess that we cannot perceive a distinction between the species and the variety, according to Mr. Burns's too general terms.

Respecting the *Stages* and *Terminations* of Inflammation, the author's observations are just, but they contain nothing new; nor do we find that the subject is placed in a more advantageous light than was afforded by preceding writers.

In treating of the *Proximate Cause* of inflammation, the various opinions of Pathologists are examined with considerable acuteness. Rejecting them all, Mr. B. then proposes his own; which is, that inflammation depends on increased action of the vital power. We are not completely satisfied with this account; the word *action* is so vague, and the term *vital power* is so obscure, that we are not conscious of any material accession of knowledge from this definition. It were better to say at once, *παντα ὑποληψις*; and to rest satisfied with a plain description of obvious phenomena, the theory of which is at present beyond our reach.

The erratic mode of expression, employed by Mr. Burns, has led him into a considerable error respecting the nature of adhesive inflammation. We shall quote his own words, in order to give the reader an idea of his peculiar style :

“Adhesion appears to be a more delicate process, than joining parts with mucus, lymph, or any intermediate substance whatever. It appears to be nothing less than the action of that power, which is always operating in the system, and restoring the waste of the body; but, from the circumstances under which it is exercised, and the causes which tend to make it imperfect, the substance which is thrown out is not always perfectly similar to the adjoining parts, at least in extensive wounds.

“This process, which, when carried on in health, is called nutrition, has, in disease, been named the adhesive inflammation. But the term is improper; for adhesion never takes place, until inflammation subsides; and it often is produced without any previous inflammation, and quite independent of it, without heat, without pain, and without extensive redness. Whenever a wound inflames, its lips separate, and pain is produced: when the inflammation is removed, then the parts adhere, and the pain ceases. Adhesion is, in this case, synonymous with resolution; indeed, resolution is almost always attended with adhesion. There is, however, this difference betwixt them, that adhesion may take place without previous inflammation,

flammation, whereas resolution implies the existence of that disease. If, however, inflammation has preceded adhesion, then it is exactly the same with resolution, being a termination of the inflammatory action. He, then, who would talk of the adhesive inflammation, is just as much mistaken, as he who would speak of the resolving inflammation.'

The term *adhesive inflammation* has never been employed in the sense which is here assigned to it: by this phrase, must be understood that species of inflammation in which the symptoms are suspended by a partial effusion of coagulable lymph, and a consequent union of the sides of the inflamed parts: but in which, the disposition to disease is renewed in the adjacent parts, where it is successively relieved by fresh effusion, and subsequent adhesion. This process, though repeated, does not always prevent the disease from terminating fatally; of which we have a striking example in peritoneal inflammation. It is, therefore, entirely different from *resolution*, which implies a total relief from inflammation.

It would be impossible to follow the author through the mazes of his pages, without transcribing more than our readers would find agreeable: but we shall extract his account of *Death*, further to justify the preceding observations on his peculiar style:

'Death has been considered as merely a privation of life, or a cessation of action; but this negative state does not constitute absolute death. Death is the descending of the vital principle of one species, to the condition of that of another of a lower degree, and therefore, must imply activity, or a state of change and conversion, referable to an action of the vital principle itself. There is, however, this intimate connection betwixt a cessation of action, or apparent death, and real or absolute death, that when the vital principle is not employed in some other action, it has a natural tendency to assume the action of descent, or sink down to a lower species. This descent would appear to take place more or less rapidly, according to the absolute quantity of life which exists together, in the organ or part which is to die; for wherever the quantity is very small before the action of descent commences, then it takes place very quickly. Hence, when a number of organic particles are contained in any portion, and have their life strong, and in due quantity, then they retain it for a considerable time, and descend only very slowly, at the same time that they are absorbed and converted by the living power of the vessels which take them up, into a substance different from their former condition. But if their life be in too small quantity, or only a few insulated particles be taken to act on, then the descent takes place quickly. Hence, if we kill an animal instantly, and cut out a muscle, it will retain its animal life much longer, if the animal be healthy and strong, than if it be weak and diseased. Hence likewise, an animal will putrify soonest, if it die from the
action

action of any of the agentes dissimiles, than from other causes; or, in other words, the interval betwixt apparent and real death is shorter.'

We leave the reader to form his own estimate of the quantity of real information conveyed in this passage, and shall proceed to the consideration of the second volume.

The sequel of the second Dissertation, with which this volume opens, treats of the *Cure* of inflammation. Here we meet with little that is remarkable, excepting the author's objections to the use of opium: he says;

'That, in every case of inflammation, opiates are hurtful, is what no one can assert; and their utility will afterwards be fully manifested. But, that opium is useful, or even harmless, in the inflammation *valida*, which we are at present considering, cannot be admitted; because daily experience, independent of every theory, proves, that, by their use, the general fever is increased, and the local action aggravated. Even given as a preventative of inflammation, after operations, anodynes are almost uniformly hurtful, producing restlessness, heat, and thirst, and afterwards head-ache, sickness, and frequently troublesome vomiting. I have therefore now, after almost every operation, laid aside their use, and find, that the diseased action, subsequent to the local irritation, runs its progress with much less disturbance, and is much milder, and shorter, than where anodynes have been administered; and, in general, the sleep is much more composed, and always more refreshing. I have therefore, after lithotomy, amputation, the extirpation of the *mammæ*, and after labours, in almost every instance, omitted them.'

We apprehend that these remarks are not consonant to general experience.

Observations on the cure of *Ulcers* next occur, which are detailed with more precision and clearness than any other part of the book, and which we can safely recommend to the attention of Students.

Mr. Burns afterward treats of the *Inflammatio debilis*, and of Mortification, in his peculiar style; the difficulty of which is more striking than its excellence. Attempts should never be made to alter known terms, without the most cogent reasons.

The third Dissertation comprehends the *Phagedenic*, and some other species of inflammation. Of the first, Mr. Burns's definition is:

'The phagedena is a suppurating sore, dependent upon the application of a peculiar contagion. No granulations are formed, but both sets of vessels yield a thin fluid. The surface of the sore has a jagged appearance, dependent upon the irregularity of the absorption, and not upon the deposition of organic particles, or granulations. The colour of the surface is dark, but clear, or fiery. The surrounding

surrounding integuments are erysipelatous. The discharge is thin and serous, and the pain considerable. This is divisible into two varieties: first, the true phagedenic, which does not go deeper than the skin, but spreads rapidly along the surface. This kind frequently stops in its progress suddenly, and skins over as fast as it spread. Second, the noma, or penetrating phagedena, which extends deeply, penetrating sometimes perpendicularly down through the cellular substance to the muscular fascia; at other times, proceeding more irregularly, penetrating deeper at one part than another, and having its margins ending less abruptly in the neighbouring skin. This never cicatrizes rapidly; but, sometimes, when the sore assumes a healing appearance, it suddenly becomes again diseased, and a considerable portion sloughs off. The alternation of proceeding a certain length in the cure, and relapsing, is frequently repeated, and often renders the disease very tedious.

The method of cure recommended is, according to the nature of the morbid surface, either to destroy it by caustics, or to stimulate by the application of opium in powder, mixed with simple ointment.—This dissertation contains some very curious descriptions of anomalous ulcers, which may be perused with great advantage: but it would be unjust to the author to attempt an abridgment of what ought to be attentively considered in detail.

In the fourth Dissertation, Mr. Burns introduces to our notice a disease, which he considers as either not yet described by writers, or as improperly referred by them to the class of cancers:—he terms it the *Spongoid Inflammation*. We insert his description of it:

‘ This disease begins with a small colourless tumor, which, if there be no thick covering over it, such as the fascia of a muscle, or the aponeurosis of the foot, is soft and elastic, but tense if otherwise. It is at first free from uneasiness; but, by degrees, a sharp acute pain darts occasionally through it, more and more frequently, until the sensation becomes continued. For a considerable time, the tumor is smooth and even, but afterwards it projects irregularly in one or more points; and the skin at this place becomes of a livid red colour, and feels thinner. It here readily yields to pressure, but instantly bounds up again. Small openings now form in these projections, through which is discharged a thin bloody matter. Almost immediately after these tumors burst, a small fungus protrudes, like a papilla, and this rapidly increases, both in breadth and height, and has exactly the appearance of a carcinomatous fungus, and frequently bleeds profusely. The matter is thin, and exceedingly foetid, and the pain becomes of the smarting kind. The integuments, for a little around these ulcers, are red, and tender. After ulceration takes place, the neighbouring glands swell, and assume exactly the spongy qualities of the primary tumor. If the patient still survive the disease in its present advanced progress, similar tumors form in other parts of the body, and the patient dies hectic;

‘ On examining the affected parts after death or amputation, the tumor itself is found to consist of a soft substance, somewhat like the brain, of a greyish colour, and greasy appearance, with thin membranous-looking divisions running through it, and cells, or abscesses, in different places, containing a thin bloody matter, occasionally in very considerable quantity. There does not seem uniformly to be any entire cyst surrounding the tumor, for it very frequently dives down betwixt the muscles, or down to the bone, to which it often appears to adhere. The neighbouring muscles are of a pale colour, and lose their fibrous appearance, becoming more like liver than muscle. The bones are uniformly caries, when in the vicinity of these tumors. If large, they are found rough, and broken off into fragments; if small, they are generally soft and porous. This tumor is sometimes caused by external violence; but often it appears without any evident cause.’

The only remedy proposed for this disease is early extirpation. Most of the cases related at length by Mr. Burns, to support his view of the disease, appear to be only instances of the white caries; a disease well understood among the surgeons of this country.

Dissertation V. treats of *Scrophulous Inflammation*; and, as it contains less affectation of new terms than most other parts of the work, it will be read with more pleasure, and more benefit; though, on such a subject, novelty is not to be expected. Mr. Burns has found the nitrous acid useful in scrophulous ulcers.

In the last Dissertation, we are presented with a view of *Cancerous Inflammation*; and here we meet with many judicious remarks, unfortunately obscured by the new language: which we hope the author will employ more sparingly in his promised additional volume, containing an account of *Venereal Inflammation*. While the medical public are pressing forwards with essential improvements, they will feel impatience when the *Opinionum Commenta* occupy too large a space in new books.

ART. XII. *Dramas and other Poems, of the Abate Pietro Metastasio.*
Translated from the Italian by John Hoole. 3 Vols. 8vo. 11. 1s.
Boards. Otridge and Son. 1800.

WE have felt considerable compunction at being so long prevented, by a crowd of other articles, from giving our opinion of this pleasing publication:—but our concern was somewhat abated by the recollection that six of the dramas of Metastasio, rendered into English by this diligent Italian translator, had gone through our hands many years ago; and that, as those six dramas constitute a part of the present volumes, our delay might be deemed more excusable.

Mr. Hoole manifests that he is a very honest editor, by pointing out to English readers, in his preface, all that the most severe Italian critics on his Hero have urged against him, after his decease. From some of these charges, however, Mr. H. might have defended his original author; and, without flattering him, or deceiving the public, he might have safely said that Metastasio was regarded as the most perfect lyric poet that modern languages and modern times have known. Homer, Virgil, and Milton, have had their censurers, and so has Metastasio:—but who shall dispute the palm with him in writing dramas for music that will bear perusal in the closet, when separated from that exquisite composition, and those bewitching vocal talents, which rendered an audience indifferent and inattentive to the poetical merit of his pieces?—Apostolo Zeno in Italy, and Quinault in France, are the only competitors of Metastasio; and Italy has long preferred his dramas to those of his learned predecessors. Apostolo Zeno had great judgment, but little poetry. Quinault had great genius and true poetry: but his language and the plan of his operas were less favourable to music; and the music itself, with which Lulli invested his dramas, has long since been pronounced barbarous by all Europe.

The writings of the imperial laureat, however, have lately been so amply detailed, and their merits so thoroughly discussed, in the memoirs of his life by Dr. Burney*, that little more remains to be said on the subject. To dissect, and tear limb from limb, productions that have so long stood the test of time, would be cruelty to a deceased author who constantly pleased and delighted the age in which he lived. If improvements and refinements in the musical drama have been discovered since his death, he is no more blameable for not having been the first to find them, than are his contemporaries for having been contented without them. The Egyptian kings, indeed, we are told, were tried after their decease: but few authors are so formidable as to stop sufficient inquiry into their merits during life.

In looking back at our examination of the first six dramas of Metastasio, of which Mr. H. published his translation in 1767†, we were rather surprized at the severity with which we had treated *Artaxerxes*; a drama which we find to have been more frequently set and sung in Italy than any of his other pieces. The music of Vinci at Rome, of Hasse at Venice, and the voice of Farinelli in London, had silenced

* See Rev. Vol. xx. N. S. p. 373.
p. 81.

† See Rev. vol. xxvii.

poetical critics : but we are not sure that Dr. Arne's bald version had not lowered this drama in our opinion, beyond the power of Mr. Hoole's better translation to lift it up. It obtained, however, more success on our stage than any English opera ever had, in spite of its dishabille. We now see blemishes and incongruities in this composition ; yet the language, conduct, and sentiments are such, in the original, that they soften rigour ; except in the character of *Artabano*, which is outrageously atrocious. The faults in the other personages arise from excess of virtue.

To the *Olympiad* we were more lenient :—indeed there is a scene in that drama, which all Europe has allowed to be exquisitely beautiful and affecting ; and the duet of that opera has been recommended by Rousseau and other opera critics, as a model of perfection.

Titus had disarmed us ; and this drama, as well as its hero, continues still to be *the delight of human kind*.

Demophoon, as an opera, has always retained its favour ; and we still think as highly of it as we did 30 years ago. In the year 1770, Mr. Hoole brought it on the stage as an English tragedy, under the title of *Timanthes* ; with as much success as pieces written in a taste so different from our own usually gain.

Besides the operas of which a version had been previously published by Mr. H. we have now in the 1st vol. *the Dream of Scipio* ; with five Cantatas, the most elegant productions of the kind, when they were first written, and when Cantatas were in fashion. The *Dream of Scipio* is too serious and philosophical for public exhibition, and for music : but it should be remembered that it was written as a festal song, or birth-day ode, for a court ; and not for a mixed audience, before whom bustle, stage business, and variety of interesting events are necessary to keep attention awake, and to please all palates. The reasoning and sentiments, the Roman *costumi*, and the knowledge of the great characters introduced as interlocutors, manifest the abilities of a superior writer ; and it must reflect honour on the poet's memory, that he never lost an opportunity, on these occasions, of giving such lessons of morality, wisdom, and virtue, as great personages seldom receive in a drawing-room under a royal roof.—The *Advice* reads best, among the Cantatas. How they all sing in the original, those lovers of music best know who have heard them performed by Pacchierotti, Rubinielli, or Marchesi, to the music of *Sarti*, *Cimarosa*, and *Paesello*.

Vol. II. All the pieces in this volume are new translations, except *Demophoon*, which was one of the dramas in Mr. Hoole's first

first publication. The rest are the following: *Achilles in Scyros*; *Adrian in Syria*; *Dido*; *Ætius*; the *Uninhabited Island*; and *the Triumph of Glory*. All these operas, except the first, have been often performed in England; and they have been the favourite melo-dramas in Italy, Germany, Spain, Portugal, and all the northern capitals. The present translation of them confers a real benefit on lovers of music, in our metropolis, who frequent the opera without a sufficient knowledge of the Italian language to accompany the performers in the original. It will likewise enable them to form a more faithful idea of the beauties of Metastasio's poetry and sentiments, than they can ever acquire from the hasty and mangled translations, which are purchased at the opera house.

The Triumph of Glory is a beautiful and spirited Cantata on the subject of Achilles in disguise. As it seems also to be an abridgement of the drama written on that fable, we shall present it to our readers; in order to exemplify the translator's success in these smaller pieces, which, in the original, are gems of the highest polish:

• THE TRIUMPH OF GLORY.

The Son of Thetis languish'd out his hours
In exile sweet; 'midst Scyros' slothful bowers,
The slave of Love; of Love, who proudly view'd
So great a prisoner to his sway subdu'd;
To keep him still his own he every art bestow'd,
And hourly some new charms in Deidamia show'd:
He fram'd, in every movement of the fair,
Each word she spoke,
Each simple, unaffected look,
Fresh toils that might Achilles' heart ensnare
The dwelling teem'd with all that could the sense allure,
And fix his reign secure.
Throughout the splendid walls around
Soft sighs and gentle voices sound;
And languid strains, that pity move,
And whispers of protesting love.
In silent groves, the friends to stol'n delight,
Seducing zephyrs play:
The feather'd songsters tune their wanton lay:
'Twixt rock and rock the waters take
Their limped course, and murmuring break;
While earth and Heaven, all, all to love invite!
In female vesture, heedless of his praise,
The enamour'd Hero wastes his days:
Nor arms nor battle here employ'd his care,
Nor spoils nor triumphs gain'd in war;
But sweet addresses, joy inciting;
Faint repulses, oft inviting;

Contention,

Contention, urg'd in sportive mood;
 The promise given and renew'd;
 Complaining, pardon and offence,
 And flattery, that blinds the sense:
 A thousand toys, by lovers serious deem'd,
 But childish follies by the world esteem'd.

“ With thee alone, to live or die,
 My hope is now repos'd;”
 Full oft he said, while, with a sigh,
 His melting words were clos'd.

“ For ever thine, in thee alone”
 (He cried) “ my soul can rest;”
 While round the fair his arms were thrown,
 And clasp'd her to his breast.

But GLORY (who beheld with jealous eyes
 How LOVE from him usurp'd the prize,
 A heart, long-time to him decreed by Fate,)
 Achilles seeks, reproves his abject state;
 His spirit dead to honour's charms,
 And sets before his view Ulysses sheath'd in arms,
 As from a trance Achilles wakes,
 Rous'd with the stern rebuke and gleaming steel, he burns
 With conscious anger, while by turns
 The flushing colour dies, and now his cheek forsakes:
 Swift from his limbs he tears the weeds of shame,
 For arms he calls—With sword and shield
 He now departs to seek the field,
 And heal each past disgrace that stain'd a noble name.
 But lo! where Deidamia fair,
 Lost in love and wild despair;
 Breathless, sighing,
 Fainting, dying,

Pursues his flight; and vainly tries
 To vent those fond complaints her faltering tongue denies.

Yet could her words have found their way,
 The conquering dame had won her lover's stay,
 “ Ah! princess,” (he the weeping maid address'd,)
 Unjust the transports that distract thy breast.
 If thou would'st have me bear a soul so base,
 A loss like mine were easy to replace:

Would'st thou in me a hero view,

Let me a hero's steps pursue.

Farewell!—to me for ever shalt thou prove”—

This firm farewell of parting love

Her gentle spirit ill could bear:

A tremor seiz'd the hapless fair;

Through all her veins a sudden chillness flies,

And mute and motionless she lies!

What shall Achilles now? While GLORY there bestows
 Laurels and palms, here LOVE his Deidamia shows

All pale and senseless? THAT his heart proclaims
 Irresolute and weak, and THIS as cruel blames.
 The hero and the lover both contend,
 And both his agonizing bosom rend:
 The lover weeps; the hero burns;
 He now departs, and now returns:
 His feet, as changing passions sway,
 Reluctant this or that obey;
 At length one generous effort made,
 And all his virtue summon'd to his aid,
 He curbs the pitying thoughts that fain would rise,
 Awhile he silent stands, debates, resolves and flies.

'Tis true, that sorrowing still he flies,
 But GLORY at his side attends;
 GLORY, that tears of sorrow dries,
 And LOVE beneath his empire bends.

Capricious thus his rule below
 The winged archer God maintains;
 Who meets him falls beneath the foe,
 While he who flies the conquest gains.'

Vol. III. contains five operas, an oratorio, and eight Cantatas. Though these dramas, viz. *Zenobia*, *Themistocles*, *Siroes*, *Regulus*, and *Romulus and Hersilia*, have not been in such high and constant favour as some of the author's early productions, yet they have all their several merits; and each delineates and recommends some virtue of morality or fortitude to be supported, amid all the conflicts and trials of adverse fortune.—*Zenobia* exemplifies filial obedience, and conjugal fidelity to a husband whom her father's situation and entreaties obliged her to marry, though she was long passionately attached to a fond lover of her own and her parent's choice.—*Themistocles* displays gratitude to his benefactor, and love for his country, in spite of ill-treatment and ingratitude for heroic actions and signal services to the state.—*Siroes* affords an useful lesson to fathers, whose blind partiality for an unworthy younger son inclines them to treat with cruelty an elder brother, though his fidelity and affection are proof against all disgrace and suffering.—The drama of *Regulus* (the author's favourite child) cannot be accused of effeminacy, nor called a mere sing-song business. If it has any fault, indeed, it is that of being too robust and nervous a production for the lyric stage. Greek and Roman patriotism has been the foundation on which the author has built three of his best-written dramas, for declamation or the closet: but they have not been favourites of composers, nor of singers, nor of the musical public. The three plays to which we allude are those of *Cato*, *Themistocles*, and *Regulus*; in which the poet has preserved a strong historical resemblance,

blance, but has varied the heroism, dignity, and virtue, of the several patriots, in such a manner as to keep them distinct from each other. We admire the resources of Shakspeare in sustaining the character of *Falstaff* through three separate plays; and it was, perhaps, an enterprize of not less difficulty to support three similar heroes, renowned for the same virtue of patriotism, through as many different dramas, without monotony of sentiment, or deficiency of interest in the plot and characters. These personages must necessarily resemble each other, in preferring their country to their own comforts and happiness, to their children, and even to the preservation of their own lives; as well as in the heroic manner in which they bore up against adverse fortune;—yet this excellent poet has not copied himself in bringing them on the stage. The character of *Cato* is severe and inflexible; that of *Themistocles* is grand, tender, and resolute; and that of *Regulus* is magnanimous, rigid, and almost divine.

Mr. Hoole has had so much experience in translation, that we had no doubt of his accuracy in transferring into our language his author's genuine sentiments; and therefore we read these pieces as original English productions:—the fairest way perhaps of judging of the merit of poetical translation, where equivalents must perpetually take place of the literal import of words and phrases. That the songs are less mellifluous than the dialogue, and less lyrical, will not be surprizing to any judge of the comparative euphony of the Italian and our own language. In the play of *Regulus*, the character and sentiments are so congenial to our love of rational liberty and of our country, that in our opinion this drama may be read with as much pleasure as Addison's *Cato*.

The oratorio of *Joseph*, which follows the secular dramas in this volume, renders the well-known Scripture story so interesting and affecting, that few persons will be able to read it without tears. Mr. Hoole seems to have taken particular pains, and with success, in translating this sacred drama.

We shall terminate our account of these volumes by the last two speeches of *Regulus*, just before he returns to Carthage, and to chains and torture, rather than be guilty of perfidy, or suffer his country to submit to the ignoble propositions of peace with which he was sent to Rome, on his parole. To the prayers of his family and friends, who represent to him what Rome has to fear 'in losing him, her father,' he replies:

' Let Rome reflect that father is but mortal;
That now he stoops beneath the weight of years;
That life creeps languid thro' his shrivell'd veins:
That he no longer now can shed his blood,

Or toil for her ; that nought for him remains
 But, as a Roman ought, to meet his end.
 Heaven opens to me now a splendid path ;
 I now can close my latter days with glory :
 It cannot be—I know, I know too well
 The hearts of Romans. Every one whose birth
 Gave him with me to breathe one common air
 That fans the Capitol, from Regulus
 Will not in thought dissent. I know that each
 Applauds me in his heart with generous envy ;
 That midst th' emotions, by a tender feeling
 Unwarily betray'd, he breathes to Heaven
 His ardent vows for fortitude like mine.
 No more of weakness then, but cast to earth
 Those ill-tim'd weapons. O ! delay no longer
 The triumph I have spught. My friends, my children,
 My fellow-citizens ! I, as a friend,
 Entreat of each ; as citizen exhort you,
 And as a father let me now command.'

Lastly ; when, against the most urgent solicitations of the senate, and the cries of the people, he resolves to depart, he says—

' Romans, farewell ! and let our parting now
 Be worthy of us. Thanks to Heaven ! I leave you,
 And leave you Romans. Ah ! preserve unsullied
 That mighty name, and be the arbiters
 Of human kind, till all the world become,
 By your example, Romans. Guardian Gods !
 That watch this happy land ; protecting Powers
 Of great Æneas' offspring ! I intrust
 To you this race of heroes. Still defend
 This soil, these dwellings, these paternal walls.
 O ! grant that valour, glory, constancy,
 Justice and truth may ever here reside ;
 And should some evil star, with adverse beams
 E'er threat the Capitol, see, mighty Gods !
 See Regulus—let Regulus alone
 Be made your victim, and the wrath of Heaven
 Be all consum'd on my devoted head :
 Let Rome unhurt—but why those tears—
 —Farewell !'

Each of these volumes is decorated with a frontispiece, representing a principal scene in one of the dramas.

ART. XIII. *A Practical Guide to Thorough-Bass*, written by A. F. C. Kollmann, Organist of His Majesty's German Chapel, at St. James's. Folio. 10s. 6d. To be had at all the Music Shops. 1801.

WE have already announced two masterly works on the subject of music, by this ingenious author*. They contained well-digested rules for composing music; and the present treatise gives instructions for the practice of harmony, or the art of accompanying musical compositions in general, under the title of *Thorough-Bass*.

Part I. *Introduction*, and Chap. I. concerning the *Scale*, are concise, and the definitions accurate and clear; till we come to a specimen of *Enarmonic*, at p. 2. It appears necessary for every theorist to say something about this long lost genus: but *Enarmonic*, and quarter tones on our scales and keyed-instruments, are all imaginary; and every effect of this example, and of all the examples which we have seen, has been produced by *Pequivoque* and extraneous modulation. Whoever talks of *Enarmonic* has a different idea of it from his neighbour. Rameau has bestowed many words on the subject: but those who pretend to understand the Greek writers on that genus, in Meibomius, say that Rameau knew nothing of the matter, and that his *Enarmonic* is no *Enarmonic* at all. It is ever so when we pretend to reason without fixed principles. "What can we reason but from what we know?" and that we are ignorant of the *Enarmonic* melody of the antients is as certain, as that we have no quarter tones by which it could be produced in our scales and instruments.

Chap. II. *Of Intervals*. These are clearly described, and rendered visible by notation.

Chap. III. *Of Chords in general*. Prohibition of 5ths and 8ths in succession. "Discords never to be doubled." The 7th and 9th certainly cannot, as they must be resolved by descending one degree: but the 2d may be doubled legally and with good effect. The chord of the $\frac{5}{2}$ is best accompanied by the octave of the 2d or the 5th; and Haydn, in his Hymn for the Emperor, has happily passed through the double octave of the bass, carrying a $\frac{6}{2}$ to the 3d of the next descending bass.

* *An Essay on Musical Harmony*, see N. S. vol. xxi. for 1796; and *An Essay on Practical Musical Composition*, N. S. vol. xxxi. for 1800. In our account of the former of these two works, we have just discovered two typographical errors: p. 28. l. 9, for *connective*, r. *consecutive*; and p. 30. for *Kirnberg's*, r. *Kirnberger*.

Of the inversion of Chords in the treble. These are made manifest by notation. Provided that the bass continues firm, or remains the same by iteration, there is no change of chord. When the bass moves by wide intervals, common chords in succession may be played without fear of successive 5ths and 8ths. The danger of violating the rule which prohibits their succession, diatonically, occurs when the bass rises or falls gradually.

At the bottom of p. 8. we have a good example for figuring accidentals: but at the top of this page, we think, the author introduces his young readers to *anomalous* chords too soon. Those that are mentioned here are well explained, and denominated passing-notes: yet before regular and simple harmony has been defined, exceptions and licences should be kept back.

The whole of page 9. is good, and not only clear and unexceptionable, but contains what a student would do well to adopt. The first example in notes should, perhaps, have been barred in pairs; to shew that a whole line of such crude chords was not given as good music, but that any two such chords, so figured, may be used.

The difficulties and crudities of pp. 10. and 11., it is to be feared, would disgust a young player with a nice ear, and make him hate music as long as he lived. These *anomalies*, on which Mr. K. dwells so long, whenever used otherwise than as transient and passing-notes of taste, are, to our ears, detestable. The ♯4 in the treble, against the D♯ in the base, as at pp. 13 and 17, must always be as offensive to young ears, undepraved, as any thing that is *nasty* is to the palate. There are filthy lights and sounds, as well as tastes. The bass at ♯4 would frighten a young musician by its awkward intervals.

The examples of $\frac{6}{4}$ are good exercises for the hand, though not pleasant to the ear; and such a series of fourths and sixths is not likely to be wanted.

The notes at p. 12. are clear, though perhaps the text may be found a little embarrassed:—but it is the business of *notes* to illustrate the *text*; and Mr. Kollmann's musical notes are in general so accurate and clear, that they almost preclude the necessity of reading the text. If any thing in his method and manner of writing should be found objectionable, it would be his too numerous *references*; which take up a great part of each page, and occupy much time in turning to them; occasionally for a few words only. It would be better, perhaps, that

that a rule should be finished at once, than divided and subdivided into so many numbers, sections, &c.

In treating of the 7th, its accompaniment, preparation, resolution, and inversions, no notice is taken of its being allowable to accompany it with the octave, as well as 3d and 5th. Besides enriching the harmony, its convenience to the hand, in combining the chords is such, that in a series of 7ths accompanied by 4 parts, two are retained, and only two are to be changed, in each bass. Rameau, in his *Code de Musique*, (the last work which he published, 1760,) calls this *la mécanique des doigts*, the mechanical arrangement of the fingers. By the addition of the octave to the chord, it makes the rule for it short; 'the 7th is added to the common chord.'

In examples of chords of the $\frac{6}{5}$ in succession, the 8ths are wanted as much as in a series of 7ths, of which the chords of $\frac{6}{5}$ are the inversion. The last three examples of page 16, *b*, *c*, *d*, are good, and uncommon.—If a fundamental bass were given to the example of thirds and fourths, at the bottom of p. 17, it would shew whence the chord is derived, and the use of accompanying the 7th with an 8th.

The examples at p. 18. are all good for practice; the 3d example is very good in theory, and pleasant to the ear; and in the last way of figuring the chord of the $\frac{4}{3}$, the author has given 4 notes, as in the 7th, accompanied by the 8th, of which the fundamental is $\frac{7}{6}$.

In a succession of chords of the second, in old masters, the $\frac{4}{2}$ were alway struck in the accented part of a bar, whether in common time of 4 crotchets, or $\frac{4}{2}$. In page 19, all the three examples strike the 2ds on the unaccented part of a bar.

Chap. VIII. *The suspensions and anticipations*, of which this chapter treats, are but appoggiaturas in the treble or bass, figured; and the ear disputes whether any notice should be taken of appoggiaturas in accompaniment. If the player or singer makes an appoggiatura in a close note, from the 2d or sharp 7th of the key, and the accompanier plays a common chord, the appoggiatura is but the more impressive, and melts into the key-note more agreeably. We apprehend that such full and crowded figuring will not only embarrass the accompanier, but disturb the singer or instrumental performer. It is making a *lesson* of the chords, which will attract more notice than the person accompanied would wish.—At p. 50, to which the author refers, we think that a thorough-bass player has nothing to do with the little notes or appoggiaturas; and

that a singer, who wished to have the taste and expression respected, would receive such assistance with indignation. Accompaniment on keyed instruments was originally meant to enrich the harmony and guide intonation, without noticing or disturbing the melody. In accompanying from a score, indeed, of many parts, when any one of the instruments (the player being absent) has a solo passage, or any peculiar melody worth hearing, it should be picked out, and played instead of chords,—but quietly, to preserve *transparency*. This page (50) is well calculated to shew what effect these appoggiaturas would have, if played; and to account for their effect, if sung, and unnoticed in the chords.—All the advantages to a singer, resulting from their accompaniment, are so well described by Rousseau, in his *Letter upon French Music*, that we shall refer our speculative readers to that excellent piece of musical criticism.

In Chap. X. the author gives some judicious instructions for accompanying *Recitative*, a subject which has been neglected in most books on Thorough-Bass that we have seen. In *Recitative*, few chords are wanting; none, indeed, that require to be irregularly prepared and resolved; such as the 4th, 9th, 9⁹, &c. The chief that are required, besides the common 4⁷, are the 6th, $\frac{6}{5}$, 7, $\frac{4}{2}$, and $\frac{7}{2}$.—The references in p. 30. to Chap. VII. will be very troublesome to the student, who must turn backwards and forwards for almost every note. The *Règle de l'Octave* would have saved much trouble, by telling on what intervals or sounds of the ascending and descending scales, in each key, certain figures and chords are wanted.

Page 33, in which “Alps on Alps arise,” will be styled the *cramming* page. All the discords of *suspension* and *supposition*, heaped on each other, can never be necessary in accompaniment. In composing for many parts, it would be useful to know what *may* be done: but to crowd the hand, and to fatigue the eye and ear, with such a crash of discords, will be downright jargon, and will have all the effect of a person playing with his elbows. “It is excellent” (says Shakspeare)

“To have a giant’s strength; but tyrannous
To use it like a giant.”

Rameau’s double discords, by suspension, are given before the single. We look in vain for examples of the 4th and 9th, with their simple accompaniments of $\frac{8}{5}$ and $\frac{5}{3}$. A single 4th is just mentioned at p. 23, when the signatures 4 3 are said to denote two chords: but what those chords are, we are not told.

told. Yet this appears to have been requisite before the chord of the 11th was described, which is but the chord of the 7th.

$\frac{7}{2} \cdot \frac{7}{4} \cdot \frac{7}{2}$, or $\frac{7}{4}$; which is simply expressed by any of these sig-

natures, and answers the purpose of chord of the 11th or 13th. At p. 58, we have single 4ths: but they are almost all unprepared.

Perhaps, new harmonies should not be introduced in accompanying old music. Corelli, Geminiani, and Handel, by a 4th and 9th, meant nothing more than that the 4th in the triad should be taken instead of the 3d, and the 9th instead of the 8th: but the Rameau school gives the 9th with the 4th, and the 7th with the 9th. This method disguises, and, we think, deforms old compositions; of which the simplicity is now become their greatest beauty and rarity.

The enumeration of chords by supposition, which Mr. K. has given at p. 33, will probably serve as a beacon to young musicians; and warn them not to meddle with them, in accompanying a single verse or instrument.

We find no rules nor examples of the simple 2d, as prepared and resolved in the bass, before ornaments, appoggiaturas, notes of taste, and double and triple discords are considered. We think that simple discords, in the manner used by old masters, as 4 3, 9 8, $\frac{4}{2}$ should be explained by the tutor, and learned by the student, before refinements are discussed. Most of the anomalies, concerning which Mr. K. has lavished his science, are but false relations, and should be touched as tenderly as a sharp against a natural of the same name. Em. Bach and Haydn have done this without offence: but as soon as clumsy imitators handle such dangerous tools, they are sure of inflicting a wound on the ears of all around them.

At the end of the work, we meet with fragments of movements by six celebrated authors: Em. Bach, Handel, Corelli, Geminiani, Rameau, and Tartini, as figured by themselves, with some explanations under the notes. These will be excellent studies for young practitioners in Thorough-Bass; and we may venture to recommend the whole work as constructed on sound principles of counterpoint, replete with useful rules and precepts of accompaniment, and truly meriting the attention of students in practical harmony.

Art. XIV. *Calmet's Dictionary of the Bible, &c. &c.* Parts VIII. to XXI. inclusive *. 4to. 5s. each. Taylor, Hatton-Garden.

PARTICULAR circumstances have delayed, much longer than we wished, our farther notice of this laborious and important publication. It proceeds with rapidity, yet, we believe, with attention and accuracy; and it seems to obtain that success which, from what observation we have made, it certainly merits. It cannot be expected that we should enter into a critical examination of a work so extensive, so multifarious, and which is not yet arrived at its conclusion: but we must inform our readers that it is a performance which abounds with entertainment and information, separate from its more direct intention of elucidating the Scriptures, and advancing biblical knowledge: in which latter respect it is likely to prove peculiarly useful. The dictionary of Calmet has itself undergone emendations, remarks, and omissions, inclosed in crotchets, which we presume are the work of the editor: but its value is still more increased by the collections which occur at the end of each part, under the name of *Fragments*. Here are stores of erudition, valuable instruction, and agreeable amusement, compiled from numerous writings and authors; together with many reflections and observations suggested by the editor himself, or those who are connected with him.

The attempt, in No. CLI, to vindicate the Prophet Daniel, or rather to illustrate his *Hieroglyphic animals*, by the figures which Le Bruyn has copied from the ruins of Persepolis, is very ingenious;—‘the ideas (says our author) are remarkably coincident; they differ but as the language of sculpture differs from that of poetry.’ He adds; ‘such instances should be well understood and maturely weighed, before we deprive Daniel of the station he occupies in our sacred books.’—In the foregoing article, No. CL, we observe learned and curious criticisms, which apparently contribute to lessen the difficulties attending the account of Nebuchadnezzar’s *golden image*. The subject of No. CXLV. is *Dagon and Dergetor*, half fish, half human, images or heathen deities, in whose form and name some have supposed (and Mr. Bryant in particular) that there is an allusion to the preservation of Noah in the Ark. For the skilful and erudite manner in which this conjecture is here supported, we must refer to the work itself: but we cannot omit to notice the application that is made of these reasonings to the famed history of Jonah. With great modesty, several questions are proposed; one of the principal of which

* See M. R. vol. xxiii. N. S. p. 392, and vol. xxvi. p. 451.

is whether the Hebrew *Dag*, or the Greek *Ketos*, might not merely signify a great *sea fish*, but also a sea-vessel, float, or raft.—This history, as it stands, (says the writer,) has always given offence to most considerate readers, and it has been the occasion of ridicule to too many unadvised *half thinkers*; it has even been called by some, “a mill-stone around the neck of Christianity:”—I therefore submit *these* hints as what I esteem a duty, since every new idea on the subject is entitled to some attention; and since this investigation may lead some more fortunate writer to the complete developement of the history.—From all that is here said on this point, the inference drawn is:—‘Should not this subject be a strong and striking admonition to *free-thinkers*, not to ridicule Scripture-histories, though they may to *us* seem unnatural or uncouth, since their perverted appearance arises from that of the medium through which they are seen, (I mean *our* imperfect acquaintance with the terms used to describe them, and the relations to which they are allied,) and not from any original misrepresentations in the histories themselves.’

We shall now present the reader with some more adequate specimens of these Fragments:

‘No. CXLII. *Extermination of the Jews by Ahasuerus.* There is something so entirely different from the customs of European civilization, in the conduct of Haman and Ahasuerus, in respect to their proposed destruction of the Jewish people, *Esther*, chap. iii. that the mind of the reader, when perusing it, is alarmed into hesitation, if not into incredulity. And indeed, it seems to be barely credible, that a king should admit of such a massacre of his subjects,—a whole nation cut off at one stroke! However, that such a proposal might be made antiently, is attested by a similar proposal made in later times, which narrowly escaped from witnessing a catastrophe of the same nature. M. De Peyssonnel, in delineating the character of the celebrated Hassan Pacha, who in the war of 1770, between Russia and Turkey, became eminent as a seaman, says of him, “He preserved the Greeks, *when it was deliberated in the council*, (of the Grand Signior) *to exterminate them intirely*, as a punishment for their defection, [i. e. some of them] and to prevent their future rebellion: *he obtained for them a general amnesty*, which he took care should be faithfully observed, and this brought back a great number of emigrants, and prevented the total desertion of that numerous class of subjects, which an unseasonable rigour would have occasioned; and which must have depopulated the provinces, rendered a great part of the country uncultivated, and deprived the fleet of a nursery of sailors.” *Remarks on Baron de Tott*, page 90. Political evils these, which, nevertheless, would not have preserved the Greeks, without the personal influence of the admiral,—as the consideration of similar evils could not restrain the anger of Haman, and the mislead confidential caprice of Ahasuerus.—N. B. This account has lately been confirmed by Mr. Elton of Smyrna.’—

'No. CLXXVIII. *Of Hay, not made in the East.*—There is a gross impropriety in our version of *Proverbs*, xxvii. 25. *The Hay appeareth, and the tender grass sheweth itself, and herbs of the mountains are gathered.* Now, certainly, if the *tender grass* is but just beginning to shew itself, the *hay*, which is grass cut and dried after it has arrived at maturity, ought by no means to be associated with it, still less ought it to be placed *before* it. And this leads me to notice, that none of the dictionaries, &c. which I have seen, seem to me to give the accurate import of this word, which I apprehend means, the first shoots, the rising—just budding—spires of grass. So in the present passage (נִלְה חֲצִיר) *the tender risings of the grass are in motion, and the buddings of grass* (grass in its early state), as is the peculiar import of (רִשָּׁא) *appear, and the tufts of grass*, proceeding from the same root, *collect themselves together, and, by their union, begin to clothe the mountain tops with a pleasing verdure.* Surely, the beautiful progress of vegetation, as described in this passage, must appear to us too poetical to be lost; but what must it be to an eastern beholder! to one who had lately witnessed all-surrounding sterility! a grassless waste!

Among many other remarks, the critic refers to *Isaiah*, xv. 6, and then adds,

“Is it not unhappy that in the only two places of the Old Testament, where our translators have used the word *hay*, it should be necessary to substitute a word of a directly contrary meaning, in order to accommodate the true rendering of the passages, to the native (eastern) ideas of their authors?”

In the foregoing number, instances are given, (as had also been done by Mr. Harmer,) in which *mowings* should have been rendered *feedings*; *moweth* grass, grass that has been *fed off*; and the word *mower*, *carrier*.

'No. CC. *Progress of Christianity compared with that of Mahometanism.* “The progress of Christianity was, 120 at the ascension, *Acts*, i. 15, soon after, 3000, *Ch.* ii. 41, then 5000, and in little less than two years after the ascension, to great multitudes at Jerusalem only.—Mahomet was three years silently occupied in making 14 converts, and they of his own family; and proceeded so slowly at Mecca that in the seventh year, only 83 men and 18 women retired to Ethiopia, and he had no established religion at Mecca to contend with.” Gibbon, *Hist. Rom. Empire*, ix. 244. The reader will make his own reflections on the above. There are few subjects more remarkable than that of the rapid spread of Christianity; yet because it lies beyond the limits of New Testament history, we are less acquainted with it than we ought to be. Nevertheless, the evidence arising from it, is of the most striking and extraordinary nature, since this religion not only made converts among those who had few or no religious rites, but among those whose ritual was supported by law, had been transmitted down from a long line of ancestry, and seemed, in all human appearance, firmly fixed, as on the most solid rock, if it had been estimated immediately before that system was to
be

be offered to its professors, which at length was to triumph over it. In this view of the subject, the reception of the gospel by *Dionysius* and *Damaris* is a more effectual proof of its value and estimation, than the indifference of the whole senate of the Areopagus is to the contrary. For this seems at least to be certain, that scarcely any body would exchange an old, and general, and hereditary religion for a new one, unless that which was offered to them was so excellent that its attractions were irresistible, or their own was so unworthy that conscience was glad to get rid of the burden it occasioned by its imperfections, not to say its iniquities. Now when both these causes operate together, as in the case of Christianity, when the religion proposed is insuperably recommended by its benefits, spiritual benefits, and the idolatry of the countries was debased, not merely by its superstitions, but by its vileness, we may hope that Religion's course would be rapid, and glorious, its effects beneficial and salutary, and at length its triumph complete and lasting—without the power of the sword, the terror of conquest, or the prejudices of human nature, and unassisted by the mazes of policy, or the intrigues of patronage. In this let the cross triumph over the crescent!

The adjoining number, on '*Judaical Memoranda, now extant*,' is introduced by a dialogue: 'it is of little moment (says the author), who were the parties in the following conversation, the application of principles adopted in it is what must be its recommendation.'—Our notice of it can be but short.—After some sensible remarks advanced by A, concerning the utility of antient coins or medals for the assistance and support of history, B sarcastically replies;—'to be sure—all coins are genuine—antiquaries are never deceived—they never read on a coin what is not there—they never read *wrong* a *right* inscription, nor draw false inferences from a true representation:—We have never heard of manufactories of ancient coins, in modern times—at Florence—at Pisa—at—' Here A interrupts his friend, and calmly answers;

'I admit, for argument sake, all you are pleased to insinuate; but what think you of the *Arch of Titus*, still extant at Rome?—say that books may be made, or interpolated, or misunderstood; say that coins and medals may be fabricated, at little expence, though certainly, in fact, at an expence which no probable sale could justify; but this is a building of great expence, of undoubted antiquity, and of unquestionable reference to the prince whose name it bears: yet this edifice speaks the same language as the books and the medals. *Vespasian* and *Titus* triumphed over Jerusalem; it was not an ovation, it was a triumph they celebrated, and to commemorate the triumph, the arch was erected, and still exists; it still bears the heathenish inscription *Divo Vespasiano Divo Tito*; it still proclaims the elegance of the art which composed and executed it; it has no suspicious marks of the gothic degeneracy, so predominant in later ages; and we know too, that had later ages constructed it, they would have sought other *Divo's* than *Vespasian*

or Titus, and *Divo Antonio*, or *Romualdo*, names equally barbarous and obscure, would have superseded the memorials of "the delight of human kind."—Since then the conquest of Judea is the subject of this triumphal structure, that conquest was of considerable magnitude; the contention was against a people warlike at least; of ability to contend with Rome itself, all-powerful as that empire was at the time: and this building proves, not merely the existence of the Jewish polity and people, but their consequence, their obstinate resistance, the time of their destruction, their religious implements, and the dissolution of their constitution, civil and religious. Under this view of it, let us acknowledge the kindness of Providence, which has preserved such a monument to our own times, and has thereby furnished an indubitable and unequivocal proof of the fulfilment of those prophecies which foretold these events, and of the veracity of those histories which record them.

Whatever acknowledgement is made (for which there is certainly too much reason) of the frauds and impositions that have been practised in medalllic pursuits, yet several coins and medals are here produced, as tending to corroborate or illustrate the Jewish history and the accounts of Scripture.

One additional specimen may be acceptable to many of our readers; we have selected it chiefly because it is short; most others being too extensive for our insertion:

'No. CLXVIII. *Emphatic reduplication of words.* 'Sir John Chardin translating a Persian letter, renders thus,—"To whom I wish that all the world may pay homage,"—but says, "In the Persian it is, that all souls may serve his name, his name.—Repetition is a figure very frequent in the Oriental languages, and unquestionably borrowed from the sacred language, of which there are a thousand examples in the original bibles, as *Psalms* lxxviii. 12. *They are fled; they are fled*; that is, they are absolutely fled. *Psalms* lxxvii. 5. *the man, the man*; that is, the perfect man."—(1) I am not so sure of the exactness of Sir John's second instance, as I am of the general justice of his remark, that the duplicate form of words is very frequent in Scripture, because I observe that in the *Psalms* quoted there is a *vau* placed between the words; a man, *and* a man; "of Sion it shall be said, 'a man *and* a man,' (i. e. a great many men) was born in her." But, in *Isaiah*, xvi. 3, we have, "Thou wilt keep in peace, peace, because he trusteth in thee;" i. e. in perfect peace: and so elsewhere often. (2) I doubt whether duplication of words be borrowed from the sacred language: I rather think it an eastern phraseology intirely independent: and the approaches to it, even when the words are not precisely repeated, and the duplicate form of verbs, becoming nouns, &c. are always esteemed of the same emphatic nature, importing intensity, continuance, &c. &c. (3) The writer wishes that all souls may serve the *name* of the king of Persia; this will remind the reader of the great attention paid to the *name* of God in Scripture, of the commands, to venerate, glorify, honour, &c. the *Divine name*; but it seems here to imply majesty, power,

power, dignity. Are not the words of our Lord to be taken in the same import? "Father keep through thine own name;"—power,—dignity:—"I have manifested thy name"—power,—dignity: so the passages, "that in the name—power—dignity—of Jesus, every knee should bow: God set Christ at his own right hand, far above all principality, and power, and dominion, and every name that is named, &c. so that the word, *name* seems to include not merely the person, but the acknowledged and well-known dignity, honour, glory, sovereignty, of the person to whom it is referred."

These are pertinent remarks. *Psalms* lxxviii. 12. is properly rendered in our present English version, *did flee* apace. The objection to Chardin's translation of the next extract appears to be very just; and that which is here offered seems to us to be consistent with the truth.

The preceding quotations will, we hope, be sufficient to furnish those who have not perused this work, with a proper idea of its nature and design; and we presume that the reader will hence form a favourable opinion of its utility and value. As far as we have observed, the editor is well-disposed to treat with candor and liberality the varying speculative sentiments which Christians may embrace, or the different denominations into which they may be distinguished. Marks of discernment and of attention also present themselves to notice; and we have not perceived that tendency to what is cabalistical or mystical, to which writers are sometimes led by oriental researches. Mere conjectures are often very unsatisfactory; and yet, as is here properly suggested, they may lead to farther thought by which truth may be assisted. *Etymologies* afford but a slender and precarious basis on which to build any important conclusions;—yet etymologies have had and may have their use: but they require profound learning, a cool judgment, and skilful and cautious application, to effect any valuable purpose. The writers to whom the editor appeals are very numerous; and we cannot doubt of his availing himself of every auxiliary. We are therefore satisfied, for instance, though we have not observed it, that he has allotted, or that he will allot when treating concerning *Mary* of Magdala, and also of the *seven brethren* mentioned in the second and suspicious book of the *Maccabees*, a particular regard to what has been advanced by the very learned and exact Dr. Lardner.

The *Fragments* are divided into centuries. At the entrance on the *Third*, we meet with a preface, in which, after acknowledgements of the favourable reception which this work has obtained, we are told that this part of it will still be continued, as a separate publication; and we are also informed of another production which is likely to succeed the present:

viz.

viz. *A connection of sacred and profane history during the whole of the Scripture period.* The excellent performance of Dr. Prideaux is mentioned with respect: but it is truly observed that it begins too late and ends too soon, to be completely satisfactory; no doubt it will admit of considerable improvements; it is to be the basis of the present work,—together also, we conclude, with Shuckford, who begins his history from the Creation, but (as is here added) did not unite it with that of Prideaux.—‘On the whole’ says this editor, ‘we presume to think, that after the explanation of Scripture words and phrases given in the *Dictionary*; of Scripture customs and manners given in the *Fragments*; and of Scripture events and their connections given in the *History*; a considerable progress will be made toward that elucidation of Scripture, which we have had at heart above these twenty-two years. We have advanced our labours thus far under the protection of Providence, and to that same protection we commit the disposal of their remainder.’

Here for the present we must finish our account of this publication: but not without expressing our hope that it will not be long before we are able to return to a farther view of these interesting inquiries. Some additional numbers have lately reached us.

ART. XV. *Memoir of a Campaign with the Ottoman Army in Egypt*, from February to July 1800: Containing a Description of the Turkish Army—the Journal of its March from Syria to Egypt—and on the Treaty of El-Arish, with an Account of the Events which followed it. By Mr. J. P. Morier, Private Secretary to his Excellency the Earl of Elgin. 8vo. 4s. stitched. Debrett. 1801.

WE believe that it is the general opinion throughout Europe, that the French would ultimately have retained their conquest of Egypt, if they had not been opposed by British troops. If any doubt, however, remains on this subject, it must be completely dissipated by the perusal of the pamphlet before us; whence it is evident that the Ottoman army under the Grand Vizier was by no means adequate to cope with the French veterans. What a wretched picture does this army make in the memoir of Mr. Morier! who has, no doubt, delineated it with accuracy, having witnessed its confusion and insubordination, when sent by Lord Elgin from Constantinople to join the Grand Vizier at El-Arish, and to accompany the Turkish expedition in its march to Egypt. The fruit of his observations is here amusingly detailed. He gives a description of the Turkish army, including the different troops of which it is composed, (viz.

Janissaries,

Janissaries, Arnauts, Lezgibis, and Volunteers, or religious enthusiasts, who follow the standard of Mahomet, its discipline, or rather want of it—the manner of encamping—its march—and the difficulty of ascertaining its real number. He thus describes the camp as it first presented itself to his view :

‘ The view of the camp the morning after my arrival at El-Arish, was to me a very singular sight, as I believe it was original in its kind. The ground upon which it stood was irregular, and a perfect desert of white sand, with no other signs of vegetation than a few date trees, which stood in a cluster at a small distance. The tents, which are of different colours and shapes, were irregularly strewed over a space of ground several miles in circuit, and every thing that moved was conspicuous to the eye, from the white ground of the landscape. The whole resembled a large fair; a number of the soldiers who serve without pay carry on a traffic by which they subsist; there are, besides, tradesmen of all descriptions who follow the camp: some keep coffee-houses, which are distinguished by a red flag; others are horse-dealers; and a number of public cryers are constantly employed in describing to the multitude things lost, or selling divers articles at auction. This scene of confusion is certainly more easily conceived than told; but a very ingenious definition of it was given by a Turk, who was asked to describe their manner of encampment. “ Thus,” said he, pulling from his pocket a handful of paras*, and throwing them carelessly on the table.

‘ To this state of disorder they join a stupid sense of security, which may at all times expose a very large force to be destroyed by an inferior. None of the precautions that are thought necessary to prevent surprise in armies much better able to withstand a sudden attack, are even thought of in a Turkish army. The moment at which I landed at El-Arish presented me with a most remarkable instance of this state of insecurity. It was late at night; I walked through the midst of the camp without being once challenged; indeed, I do not remember meeting with a human creature: the only signs that indicated the abode of man were the tents, and about them horses, camels, and asses feeding. The stillness which reigned reminded me of the wandering but peaceful lives of our forefathers, rather than of the army of a despot moving to conquest. I might have been a spy, or an incendiary; and I should have escaped with impunity.’

Mr. Morier is of opinion that discipline would make the Turkish troops formidable: but in their present state they must be considered as a disgrace to the name of soldier, and even to human nature.—Their manner of living is as simple as their conduct is irregular:

‘ A loaf of bread, with an onion, is what many of them have always lived upon; rice is a luxury, and meat a dainty to them. With this abstemious diet they are strangers to many of our diseases, and the hardships of a camp life are habitual to them: because, from

* A small silver coin.

their infancy, they have slept upon the ground and in the open air. Discipline would certainly make men who are possessed of such natural advantages very formidable; whereas, from a want of it, they are despicable enemies. With disciplined troops there exists a point of union, which, in time of danger, inspires confidence; but every individual Turkish soldier imagines himself opposed singly to the enemy's army; he feels the impossibility of resisting it, and thinks it but reasonable that he should retire. Instead of that *amor patriæ*, that point of honour, that attachment to a chief which often stimulates European armies to perform the greatest feats of valour, a principle of self-interest seems to pervade all ranks; and this is carried so far, that I have seen the heads of their own companions displayed before the Vizier at the battle of Heliopolis, merely to receive the reward attached to every man who brings the head of an enemy.

† A Turkish army may well be compared to an armed rabble; with this difference, that instead of being a lawless mob, led away by the impetuosity of passion, or by the impulse of the moment, the power of a chief may keep up a certain degree of subordination, which, however, goes only as far as he is possessed of more or less energy of character, and often will not prevent disorders, such as the plundering of villages, and quarrels between whole corps of the same army. Among many instances of the spirit of insubordination common to Turkish troops, I had an opportunity of being witness to a scene, when encamped at Catiéh, which amused me much. The Albanian troops, to the number of 7000, were encamped near the Grand Vizier; soon after dark they became merry, and, as their only demonstrations of mirth consist in shouting and firing off their muskets with ball, they very soon became troublesome. The Grand Vizier sent an officer to them with orders to desist; but no sooner had those orders reached them, than it was a signal for increasing their fire, which now resembled the file firing of a regiment on field days. The practice of firing with ball for amusement is so common in a Turkish camp, that one is in continual danger of being shot: my tent was pierced in many places; and I once discovered a fellow deliberately levelling his musket at my hat, just time enough to get out of his way.¹

The account of their march corresponds with the above representation:

‘There is no point of view in which a Turkish army appears to greater disadvantage than when on its march, because it there discloses its weakness in every way. A cryer proclaims over-night the hour of marching next morning. The baggage, camp equipage, &c. move off first, without any guard for protection; every man marches as slow, or as fast, as he pleases. Infantry, cavalry, artillery, all move and mix, forming one immense crowd, which resembles a colony emigrating; and the great number of stragglers who infest the road-sides for the purpose of plunder, makes it very dangerous to leave the crowd.’

In his journal of the march through the desert, Mr. M. notices the *mirage*, which is a most tantalizing phenomenon, where

where water is very scarce or very bad. In his observations on the Arabs, he remarks that 'their prominent *trait* is being false; and that this general principle may be laid down—that very harsh treatment will procure respect, when the least indulgence will have a contrary effect.'

In a note subjoined to the observations on the Arabs, a very heavy charge is brought against Bonaparte; viz. that of ordering, near Jaffa, *four thousand five hundred men* to be put to death in cold blood, after they had surrendered themselves prisoners of war, because in this number were found one thousand men who had capitulated at El-Arish, and had broken their engagement by having again taken arms. To this charge is added another, equally reflecting on the Chief Consul's character; viz. that 'when the siege of Acre was raised, and the French army began its march for Egypt, all their wounded and sick were poisoned by order of the General.' As Bonaparte's splendid fortune must excite many champions to vindicate his fame, we take it for granted that these accusations will not be passed over in silence. Such reports may have been propagated as facts in Syria: *sed audi alteram partem.*

The condition of the Turkish army, according to the picture here drawn of it, seems to have fully justified Sir Sidney Smith in effecting the treaty of El-Arish; to which, it is suggested, Kleber would not have acceded but from principles of hatred to Bonaparte. It is intimated that, while he was ignorant of the revolution which placed the latter at the head of the Government of France, Kleber was sincere in his intention of evacuating Egypt: but that, as soon as he was made acquainted with this great event, he disclosed a wish to violate his engagement, and was happy in having a pretext for releasing himself from it. The consequences proved the inability of the Grand Vizier's army to meet the French in sturdy combat; and how necessary it was, since the treaty of El-Arish had not been carried into effect, to send a British force to the banks of the Nile. Though this expedition has terminated gloriously for the English arms, we cannot help lamenting that any reasonable ground was furnished by a British Officer to the French General, for the renewal of hostilities. Whether Kleber was sincere or insincere, the letter of Lord Keith forced him to re-assume a hostile attitude, and must therefore be considered as having been penned in an evil hour. The brilliancy of subsequent victories must not prevent our regretting the blood and treasure which might have been saved, had not the treaty of El-Arish been set aside.

MONTHLY CATALOGUE,

For NOVEMBER, 1801.

THE PEACE.

Art. 16. *The Speech of the Honourable Charles James Fox, on the happy Restoration of Peace with France, with the other Proceedings at the Shakspeare Tavern, on the 10th of October 1801, being the Anniversary of his First Election for the City of Westminster.* 8vo. 1s. Jordan.

THIS speech, which has been given in all the public prints, is a specimen of that clear and manly eloquence which distinguishes the great orator from whom it proceeded. Having been from the beginning a decided enemy to the war, he thinks that any terms of pacification were preferable to its continuance. He declares his satisfaction in the Peace being *glorious to the French Republic*; and, conceiving the object of the war on our part to be iniquitous, (viz. to force monarchy on France) he rejoices that it has not been gained.

Art. 17. *Reflections on the Preliminaries of Peace, between Great Britain and the French Republic.* By Benjamin Flower. 12mo. 4d. Crosby and Co.

These reflections first appeared in the *Cambridge Intelligencer*, of which Mr. Flower is the printer and proprietor; and they are said to be separately published in consequence of the general notice which they excited. Most sincerely does Mr. Flower rejoice at the Peace; and with Mr. Fox he hails it the more cordially because none of the professed objects of the war are gained by it. He cannot, however, suffer the authors and abettors of what he terms an *unjust, unnecessary, and inglorious* war, nor even the makers of the Peace, to escape without animadversion, and without being reminded of their former language in Parliament. This may be all very fair: but inconsistency is preferable to obstinacy in error; and it is better that Statesmen should sometimes *eat their own words* than *starve* their country.

Mr. F. undertakes distinctly to state what Great Britain and France have gained *by the War*—and *by the Peace*: but in the former enumeration he has omitted our conquest of *Trinidad*, and the immense territory of *Mysore*, in the East Indies; and in the latter he has not counted our having secured the Peace of Ireland, and the certain consolidation of the empire. He considers the terms of the treaty as of secondary moment. It establishes, he thinks, the great principle of liberty; and he wishes that the Peace may be eternal.

Art. 18. *A short View of the Preliminaries of Peace*; signed at London, October 1, 1801. 8vo. 1s. 6d. Hatchard.

This sensible writer divides his subject into two parts: in the first of which he inquires, Whether the situation of the country made Peace desirable? and secondly, Whether the conditions on which it has been obtained are such as that situation demanded? He decides both these questions in the affirmative; and his view of the Peace

Peace is calculated to make all British readers satisfied with it.—He thus condenses into one period the substance of his pamphlet:

‘It appears, that we have closed the contest, with a prospect before us favourable in every point of view: we have closed it in possession of more substantial power, both at home, and in the East and West Indies, than we had when we entered into it; we have closed it with the glory of having been triumphant on our favourite element; with the honour of having, by the sacrifice of part of our Conquesta, preserved the dominion of our Allies; while France, on the contrary, has purchased Peace at the expence of hers.’

The author also observes that, in imitation of the Romans, we made Peace in the moment of Victory.

Art. 19. *Thoughts on the Preliminary Articles of Peace.* By a Kentish Clergyman. 8vo. 1s. 6d. Rivingtons, &c.

It is the object of this clergyman also to chase the accents of discontent, and to persuade us that ‘the proper time for making Peace is arrived; that the object for which we contended is secured, as far as human wisdom can secure it; and that the terms, under all circumstances, are such as a prudent Government ought to accept.’ In reviewing the favourable state of things in France, ‘Bonaparte’s mild wisdom and equitable rule,’ and the restoration of the Bishops to their functions, (this is not exactly the fact,) are enumerated; and in speaking of our present ministers, and of the advantages which they possessed above their predecessors, it is asserted that they had ‘no errors to retract—no steps reluctantly to measure back.’ They would perhaps deem themselves happy, if they could admit this compliment of the Kentish Clergyman.

The author conceives that our population is too small to have allowed us, with prudence, to have retained the whole of our conquests. There is truth in this remark. Ceylon and Trinidad will open an ample field for all our energies.

Art. 20. *The Immediate Causes and Remote Consequences of Peace considered.* 8vo. 2s. Thurgood.

To the individuals who instigated and abetted the war, this writer “speaks daggers;” and while he compliments the opposition, he exposes the former intemperance and present inconsistency displayed by the makers of the Peace. Looking to remote consequences, he is disposed to think that the Peace has been ‘too long delayed,’ to produce the effects which might be wished; and estimating the force of opinion, which “bears a charmed life,” invulnerable by bayonets, he not only reprobates the war as a mad crusade, but predicts that it has sown the seeds of evils to which, if the greatest prudence be not exerted, futurity will give birth. The efforts of the Duke of Bedford, the Marquis of Lansdowne, Earl Stanhope, Mr. Fox, and Mr. Erskine, to prevent the war in the first instance, and to bring it to a speedy termination after it had commenced, are detailed with much commendation; and extracts from their speeches are contrasted with the language of Mr. Pitt, Lord Hawkesbury, and the other abettors of the war.—It is indeed to be lamented that so much passion displayed itself in the speeches of the war-ministers, and that we

we consider the recency of the American war, and the lesson which it might have taught the Parliament, it should seem, as a patriotic Prelate once observed, as "if there were an act in our Statute Book which prohibited our profiting by experience."

The author of this pamphlet deems the issue of the war to be *fortunate* for the liberties of mankind; yet, when he contemplates the power which it has given to France, and the load of taxes which it has imposed on us, he fears that our resources will be gradually drained from us, and that any future war will be to us what the third Punic war was to Carthage.

It is hinted that the retirement of Mr. Pitt behind the curtain was a necessary preparative for Peace, since he had pledged himself to the Bourbons that *he would never make peace with the Republic of France without due consideration of their interests*; and that our financial situation made this measure necessary. 'War was ruin inevitable: Peace leaves a sally-port through which it is possible to escape from destruction.' Such is the consolation here exhibited.—In conclusion, it is recommended to petition the King to call a *Free* Parliament, preparatory to a *Peaceable Reform*, which may prevent dangerous consequences.

Art. 21. *Address to the Inhabitants of the United Kingdom of Great Britain and Ireland, on the Termination of the War with France.*

By the Rev. Thomas Robinson, A. M. Vicar of St. Mary's, Leicester. 12mo. 4d. Rivingtons.

Without waiting for a day of public Thanksgiving, Mr. R. here takes the start of his brethren in addressing his parishioners, and the kingdom at large, on the joyful event of the return of Peace. His remarks are serious, sensible, and such as a Christian Minister might be expected, in the discharge of his spiritual function, to offer on the occasion. He expresses, with all plainness, the sentiments and wishes of his heart on the review of the past, on the improvement of the present important event, and on the conduct which as Christians we ought to pursue in future. We recommend the tract to general perusal.

MILITARY.

Art. 22. *The Little Bombardier, and Pocket Gunner.* 12mo. pp. 216. 3s. 6d. Boards. Egerton. 1801.

A work of this kind has long been a *desideratum* in the Army, particularly in the Ordnance service, and this little volume must therefore be favourably received. The purchaser will also find that it contains much more than the title-page announces; which is no common case in this age of literary deception.

The author has given short and clear instructions on every subject of gun and mortar practice, and of Laboratory compositions: including the whole system of mining, the equipment of fire-ships and bomb-ketches, the dimensions of men of war, and several other naval articles: chiefly contained in a great number of useful tables, which are composed with much skill, and extraordinary accuracy.

We think, however, that the author is too sanguine in his expectations from mines; although he has the authority of a Berlin publication,

lication, of considerable celebrity, and of so late a date as 1799, for supposing that 'a glacis, properly countermined, and every advantage taken of it to retard the besiegers, may, with proper management, prolong a siege at least two months; and if the rest of the works are also countermined, and properly defended, they may add another month to the siege.' P. 155.

RELIGIOUS.

Art. 23. *The Christian's elegant Repository*, containing *Evangelical Philosophy*: a Series of Family Conversations on Natural and Revealed Religion. *Biographical Sketches*, with Memoirs of the Experience of eminent Christians. *Letters, Essays, and Reflections* on important Subjects, doctrinal, practical, and experimental. *The Spiritual Bee*: Anecdotes, Apothegms, Criticisms, and Curiosities of Sacred Literature. *Flowers of Sacred Poetry*: Odes, Hymns, &c. original and Translations. Embellished with six beautiful Engravings. Crown 8vo. pp. 266. 5s. Boards. Button, &c. 1800.

There are readers who would be delighted with this Repository, and who would think us a graceless set, were we to intimate no more dissatisfaction than is expressed by saying that the poetry is *elegant* in the inverse ratio of its piety. There are other readers who would predict the quality of the contents from the title-page itself, and who would not be very desirous of perusing essays written by Ministers, or others, who could divide subjects into doctrinal, practical, and *experimental*. Now, as we do not wish to offend the former, and cannot in this instance be of much service to the latter, we shall satisfy ourselves with remarking that the contents of this volume are generally serious, but that it is enlivened with some amusing anecdotes.

Art. 24. *The Plainness and innocent Simplicity of the Christian Religion*, with its salutary Effects, compared to the corrupting Nature and dreadful Effects of War: with some Account of the Blessings which attend on a Spirit influenced by Divine Love, producing Peace and good-will to Men; collected by Anthony Benezet. 12mo. 6d. Darton and Harvey. 1800.

This small tract, which is offered to us as proceeding from Philadelphia, is acknowledged to be a *collection*: we should have conjectured that a great part of it flowed from the pen of one of the *Friends*, since it is written much in the simple, pious, and rational strain of some of their publications. The latter pages are filled up by accounts, pretty well known, of the sentiments and reflections of several eminent persons on the bed of death. There is probably no occasion to travel to America for the origin of the book: it is however a practical, plain, and useful compilation: it affects some learning, and may perhaps excite a smile when it speaks of one of the early fathers, *Tertullian*, as mentioning the *Quakers*. It presents horrid facts and strong arguments, sufficient to elucidate and establish its subject; and no truth can be more clear than this, that of massacres and wars Christianity is utterly abhorrent.

POETRY.

Art. 25. *The Genius of France; or the Consular Vision. A Poem,* with Notes. 4to. 2s. 6d. Hatchard. 1801.

By transcribing the Argument, we shall give the reader a complete insight into the nature and tendency of this poem:

' Bonaparte retires from the splendor of the Thuilleries to Malmaison, ... His midnight slumbers are broken by the sudden appearance of the Genius of France, who wishes to inform himself of the ultimate designs of the Consul on his Country, ... he assumes the character of the Genius of Ambition to prevent detection, and conceal his views. ... The Consul, convinced of supernatural agency, and anxious to be informed of his future destiny, exhibits a sketch of his general designs of exalting France ... 1, by arms and the revolutionary spirit ... 2, by commerce ... 3, by the arts and philosophy; but suspecting the errand of the Genius, from the earnestness with which he inquires into the particular destiny of France, he determines to answer no question, and preserve an invincible silence: this reduces the Genius to the exercise of his power, in order to carry his point. He evokes the shades of Cæsar and Cromwell, and shews him, that to follow their example is to share their fate. But finding him rather envying than dreading their destiny, Monk is summoned, who made *so wise and noble a use of equal power* *. An address is then directed, more particularly to Bonaparte, and the visit closed with some wise and patriotic exhortations.'

Such is the machinery of this piece, which is managed with some poetical dexterity. The shade of Washington is not called up: but the pattern, on which the Chief Consul is directed chiefly to fix his attention, is General Monk. Of the nature of the advice, and of the poetry, a few short examples will suffice:

" Rise, and become what Monk was once before:
Extend to suffering loyalty relief;
Pity the aged priest, the wand'ring chief;
All who survive the bloody test of arms—
Toil, want, and exile, worst of human harms:
Think of the hapless millions who have bled,
And spare, oh! spare the living for the dead;—
Turn from thy bloody triumphs, and survey
These realms, to grief and indigence a prey:—"

* Be wise .. be just; let martial glory cease;
And, great in war, at last be great in peace.'

* Religion's venerable name adore;
Her plunder'd shrine, her fallen fane restore.'

The nocturnal lecture, which the Genius of France is here represented as giving to the Chief Consul, seems in part to have produced its effect. Bonaparte has not shewn himself averse from peace and

* Is not this a singular description of General Monk?

from the religion of his country : but he has yet manifested no symptoms of wishing to copy General Monk.—The versification of this poem is in general easy and harmonious, and the notes manifest the author's classical reading.

Art. 26. *Jacobinism*, a Poem. 4to. 3s. 6d. sewed. Nicol. 1801.

It has been with a singular mixture of pleasure and regret that we have perused this production. We discern in it much of the spirit of Dryden, and the melliflence of Pope : but, while gratified by the luxuriant display of the author's abilities, we could not but lament its unseasonable appearance. Composed (apparently) during the negotiations for Peace, and published just before the signature of the Preliminaries, it seems to interrupt and to arraign the national rejoicing for this happy event, by its representation of the people with whom we have just interchanged the olive branch ; and who are here attacked in the most embittered Phillipic that has yet thundered against them from the heights of Parnassus, in one of its most furious storms. To enter into particulars, on this now more than delicate occasion, might seem to be no better than opening afresh the WOUNDS OF THE WORLD, that have scarcely ceased to bleed ; and we shall therefore close the book with expressing a hope that we may hereafter have the unabated pleasure of meeting the author, emancipated from all alarms on the public account, in some of those charming walks in which he delights to court the not unyielding Muse.

Art. 27. *Verses to the Memory of Joseph Warton, D. D.* late Head Master of Winchester College. By Richard Mant, A. B. Fellow of Oriel College, Oxford. 4to. 1s. Rivingtons. 1800.

This tribute to the memory of the late excellent Dr. Warton, which is offered by one of his pupils, contains many good lines, and exhibits much elegant poetry. We extract a few verses, to dispose our readers for a perusal of the whole :

Happy old man ! for therefore didst thou seek
Ecstatic vision by the haunted stream
Or grove of faery : then thy nightly ear
(As from the wild notes of some airy harp)
Thrill'd with strange music ; if the tragic plaints
And sounding lyre of those Athenians old,
Rich-minded poets, fathers of the stage,
Rous'd thee enraptur'd ; or the pastoral reed
Of Mantuan Tityrus charm'd ; or Dante fierce,
Or more majestic Homer swell'd thy soul,
Or Milton's muse of fire. Nor seldom came
Wild Fancy's priests, with masked pageantry,
And harpings more than mortal : he, whose praise
Is heard by Mulla ; and that untaught bard
Of Avon, child of Nature ; nor less lov'd,
Though later, he, who rais'd with mystic hand
The fancy-hallow'd pile of chivalry,
Throng'd with bold knights ; while Chaucer smil'd to see
From his rich mine of English, unconfil'd,
Though all by time obscur'd, a gorgeous dome

On marble pillars rear'd, and golden valves
Majestic, fashion'd by his genuine son.'

The author declares himself, in his Advertisement, 'far from desirous of being considered as a candidate for public applause.' The present performance, however, induces us to think that he might command applause, if he wished for it, by his future exertions.

Art. 28. *The Sorrows of Switzerland.* A Poem. By the Rev. Wm. Lisle Bowles. 4to. 3s. Cadell jun. and Davies. 1801.

Having travelled into Switzerland, Mr. Bowles was well acquainted with its sublime and romantic scenery, and with the virtuous simplicity of its inhabitants. His imagination could therefore easily portray the consequences of a French army breaking in on them, and ravaging their country; and these effects he has described in some good and affecting lines. He thus commences with an address to *the Man of Blood*:

'Why art thou come, Man of despair and blood,
To these green vales, and streams o'erhung with wood?
These hills, where far from life's discordant throng,
The lonely goat-maid chaunts her matin song?
This cottag'd glen, where Age in peace reclines,
Sooth'd by the whisper of his native pines;
Where, in the twilight of his closing days,
Upon the glimmering lake he loves to gaze;
And like his life sees on the shadowy flood
The still sweet eve descending? Man of Blood!
Burst not his holy musings. Innocence
And peace these vales inhabit: hie thee hence
To the waste wilderness, the mournful main,
To caves, where silence and deep darkness reign,
(Where God's eye only can the gloom pervade)
And shroud thy visage in their dreariest shade!
Or if these scenes so beauteous may impart
A momentary softness to thine heart,
Let Nature plead—plead for a guiltless land—
Ere yet thou lift the desolating brand;
Ere yet thou bid the peaceful echoes swell
With havock's shouts, and many a mingled yell!
Pause yet a moment! By the white white beard
Of him whose tear-red eyes to Heav'n are rear'd;
By her, who frantick lifts her helpless hand—
By those poor little-ones, that speechless stand—
If thou hast nature in thee, oh, relent!
Nor crush the lowly shed of virtue and content!'

In the beginning of the Second Part, Mr. B. very pathetically describes the motive which induced him some years ago to visit this Alpine region:

'I was a child of sorrow, when I pass'd,
Sweet Country, through your rocky vallies last;
For one whom I had lov'd, whom I had prest
With honest ardent passion to my breast,

Was

Was to another vow'd : I heard the tale,
 And to the earth sunk heartless, faint, and pale.
 Till that sad hour when every hope was flown,
 I thought she liv'd for me, and me alone.
 Yet did I not, though pangs my heart must rend,
 Prove to thy weakness a sustaining friend ?
 Did I not bid thee never, never more,
 Or think of me or mine ; as firm I swore
 To cast away the dream, and bury deep,
 As in oblivion of the dead man's sleep,
 All that once sooth'd ; and from the soul to tear
 Each longing wish that youth had cherish'd there.
 ' But when 'twas midnight, to the woods I hied
 Despairing, and with frantic anguish cry'd :
 " Oh ! had relentless death with instant dart
 Smitten and snatch'd thee from my bleeding heart ;
 Through life had niggard fortune bid us pine,
 And wither'd with despair my hopes and thine ;
 Yes, yes, I could have borne it—but to see
 Th' accusing tear, and know it falls for me !
 O cease the thought—a long and last farewell—
 We must forget—nor shall my soul rebel !"
 Then to my country's cliffs I bade adieu ;
 And what my sad heart felt, God only knew.
 HELVETIA, thy rude scenes, a drooping guest
 I sought ; and, sorrowing, wish'd a spot of rest.
 Through many a mountain-pass, and shaggy vale
 I roam'd, an exile, passion-craz'd, and pale.
 I saw your clouded heights sublime impend,
 I heard your foaming cataracts descend ;
 And oft the rugged scene my heart endued
 With a strange, sad, distemper'd fortitude ;
 Oft on the lake's green marge I lay reclin'd,
 Murm'ring my moody fancies to the wind ;
 But when some hanging hamlet I survey'd,
 Or wood-cot peeping in the shelter'd glade,
 A tear perforce would steal ; and, as my eye
 Fondly reverted to the days gone by,
 " How bless'd, (I cry'd) remote from every care
 To rest with her we lov'd, forgotten there !"

This work will not detract from the reputation which Mr. B. has already acquired as a poet : but, when we consider the general elegance and force of his numbers, we were surprized occasionally to meet lines which were rendered feeble by such low and flat expressions as—*'the days gone by'*—

' And what my sad heart felt, God only knew'—
 ' Amid the gory tracts sit down and cry.'

These defects might easily have been avoided.

LAW.

Art. 29. *A Collection of Acts and Records of Parliament, with Reports of Cases argued and determined in the Courts of Law and Equity, respecting Tithes.* By Henry Gwillim, Esq. one of his Majesty's Judges of the Supreme Court of Madras. 4 Vols. Royal 8vo. 2l. 12s. 6d. Boards. Butterworth. 1801.

The public have long been in expectation of this work; and though they will be disappointed by the omission of the treatise on the subject of tithes, which the author had promised, and the appearance of which he has been compelled by circumstances to postpone, yet they will feel obliged by the accurate and faithful manner in which he has executed the other parts of his undertaking. The acts and records of parliament relating to the subject of tithes, and the decisions in the several courts of law and equity, are arranged (with few exceptions) in chronological order.—The value of the publication is considerably augmented by the insertion of many MS. cases, taken at different periods by men who reflect high honour on the profession, and whose names impart distinguished credit to these volumes.

Art. 30. *A Summary of the Law of Set-off; with an Appendix of Cases argued and determined in the Courts of Law and Equity upon that Subject.* By Basil Montague, of Gray's Inn, Esq. Barrister at Law. 8vo. pp. 130. 6s. Boards. Butterworth. 1801.

A collection of the cases on the subject of the law of set-off is rather a *desideratum* in the profession; because that title, in the last edition of Bacon's Abridgement, is short and incomplete; and because there is no separate title on this topic in the last edition of Comyns's Digest, though several (but by no means all) of the cases are collected under the title *Pleader* (2. G. 17.) Mr. Montague has divided his work into two books, in the first of which he considers the doctrine in question both at common law and by statute; and the statutes on this subject relate both to set-off in general between all descriptions of persons, and to set-off in the particular cases of bankrupts and of insolvent debtors. The second book treats of set-off in Equity.

The law, as laid down in this treatise, appears to us to be accurate; and the cases seem to be diligently collected, and faithfully analyzed.—This observation, however, we must confine to the first book, since the division, which considers the doctrine of set-off in Equity, is very scanty and incomplete; indeed this objection occurred to the author himself, who says; 'It is, perhaps, scarcely necessary for me to say that I consider this book as incomplete.'—Why, then, did he publish it in that state?

We think that the Appendix, containing all the cases at length, after they had been quoted and the decisions given in the notes, was altogether unnecessary. Surely, Mr. Montague cannot imagine that such a subject *bis repetita placebit*.

Art. 31. *Historia Placitorum Corone.* The History of the Pleas of the Crown, by Sir Matthew Hale, Lord Chief Justice of the Court of King's Bench, published from the original MSS. by Sollom Emlyn of Lincoln's

Lincoln's Inn, Esq. with additional Notes and References to modern Cases concerning the Pleas of the Crown, by George Wilson, Serjeant at Law. A New Edition. And an Abridgment of the Statutes relating to Felonies continued to the present Time, with Notes and References by Thomas Doghertry, Esq. of Clifford's Inn. 2 Vols. royal 8vo. 11. 8s. Boards. Payne, and Butterworth. 1800.

The merit of this production of Chief Justice Hale has been too long known, and its utility to the profession has been too frequently acknowledged, to require at this time any observations from us. Indeed, the circumstance of the House of Commons * having directed the publication of it is alone a sufficient proof of the exalted reputation of the author;—a compliment which we do not recollect to have been paid to any other writer, and a just tribute of praise to the indefatigable and enlightened exertions of this exemplary judge.

We are informed by the present editor, to whose industry and judgment on former occasions we have borne willing testimony †, that the additional notes and references to modern cases, applying to the subject of this work, which were inserted in the margin of the former edition, are placed at the end of each chapter in the present; and an abridgment of those statutes relating to felonies, which have been enacted since the first publication of the work in the year 1739, to the present time, is introduced after the *addenda in notis*, at the end of the first volume, in order to prevent any derangement of the original paging. — We have examined, with some attention, the additions introduced by the present editor, which appear to us to be judicious and pertinent; and we think that his labours have increased the value of a most useful and profound work.

MEDICAL, &c.

Art. 32. *A Practical Inquiry into Disordered Respiration, &c.* By Robert Bree, M. D. The Second Edition, corrected. With an Appendix. 8vo. pp. 300. 6s. Boards. Robinsons. 1800.

We have spoken our opinion fully respecting the first edition of this useful work; (vol. xxxii. p. 66.) and we notice the second only for the purpose of remarking that Dr. Bree has made several judicious retrenchments, which will render the book more acceptable to readers in general, without detracting from the quantity of actual information which it contains. On the opinions and facts, we have nothing new to observe.

Art. 33. *The Villager's Friend and Physician; or a familiar Address on the Preservation of Health, and the Removal of Disease on its first Appearance; supposed to be delivered by a Village-Apothecary. With cursory Observations on the Treatment of Children, on Sobriety, Industry, &c.* By James Parkinsqu. 8vo. 1s. Symonds. 1800.

* Vide Journ. Com. Lunæ. 29. die Novemb. 1680.

† Mr. Doghertry was the author of the Crown Circuit Assistant, and the editor of the last edition of the Crown Circuit Companion, noticed in our 30th Vol. p. 456.

Much good advice is offered in this publication; and it is conveyed in a style which is in general well adapted to a village-audience. We therefore recommend it to the attention of our honest neighbours in the country.

Art. 34. *The Chemical Pocket-Book; or Memoranda Chémica: arranged in a Compendium of Chemistry: with Tables of Attractions, &c. calculated as well for the occasional Reference of the Professional Student, as to supply others with a general Knowledge of Chemistry.* By James Parkinson. Second Edition, with the latest Discoveries. Small 8vo. 6s. Boards. Symonds, &c. 1801.

The first impression of this compendium was accidentally overlooked, among a few other small publications. This new edition is much improved in every respect; and it will be found an useful and convenient book for reference, by readers who have not opportunities of perusing the systematic writers on chemistry.

Art. 35. *The Hospital Pupil; or an Essay intended to facilitate the Study of Medicine and Surgery.* By James Parkinson. Small 8vo. 3s. 6d. Boards. Symonds, &c. 1800.

This essay contains, like Mr. Parkinson's other productions, much plain good sense, and many practical observations, applicable to most of the younger candidates for the honours and emoluments of the profession. Society is deeply interested in this subject; which, in the hands of a master, would be capable of exciting a much more general attention than it seems to command. In the mean time, Mr. Parkinson's treatise may be strongly recommended as a safe and useful guide to parents, who mean to educate their children for the practice of medicine and surgery.

Art. 36. *Clinical Lectures, delivered in the Years 1765 and 1766.* By William Cullen, M. D. &c. Taken in Short-hand by a Gentleman who attended. 8vo. 6s. Boards. Lee and Hurst.

These Lectures cannot fail to excite attention; since, amid all the revolutions which have happened in medical opinions, the name of Cullen must command a high degree of respect. Yet when it is considered that the *First Lines of the Practice of Physic*, printed long after the date of the present Lectures, contain the author's improved opinions respecting the diseases cursorily treated in this volume, it may rather be regarded as a literary curiosity than as an accession to the stock of actual knowledge. The excellence of Dr. Cullen as a teacher can never be obliterated from the memory of those who had the advantage of hearing him; he knew particularly how to impart an enthusiasm for study and observation, which has contributed to form many eminent practitioners; and the freedom with which he attacked the humoral pathology, then universally established, was a principal cause of that emancipation from the shackles of system, which has given scope to the extensive and spirited improvements of medicine in modern times.

Those who are curious in tracing the progress of opinions may derive considerable amusement from comparing the practice and the comments of Cullen, in the cases here stated, with his matured sentiments, as they are contained in the latest edition of his *First Lines*.

In a case of Dysentery, for example, mentioned in this volume, the professor is made to say that he had avoided purging, to shew his pupils that the cure of the disease did not depend on the evacuation of acrimony. This, Dr. Cullen, within our memory, would undoubtedly have called bad practice.

For the reasons already given, we deem it unnecessary to make any extracts from this volume.

Art. 37. *Nosology; or a Systematic Arrangement of Diseases*, by Classes, Orders, Genera, and Species; with the distinguishing Characters of each, and Outlines of the Systems of Sauvages, Linnæus, Vogel, Sagar, and Macbride. Translated from the Latin of William Cullen, M. D. 8vo. 5s. Boards. Robinsons, &c. 1800.

To characterize Dr. Cullen's nosological system, which has been for many years before the faculty, would be a work of some labour and of little necessity. We shall therefore content ourselves with remarking that this translation seems to be executed with fidelity; and that it will convey a very complete idea of the original work, to those professional readers who may want the assistance of an English version.

Art. 38. *The Edinburgh Practice of Physic and Surgery*; preceded by an Abstract of the Theory of Medicine, and the Nosology of Dr. Cullen; and including upwards of five hundred authentic Formulæ, &c. With four Quarto Plates. 8vo. 14s. Boards. Kearsley. 1800.

This compilation will probably be found serviceable to many country practitioners, who have not leisure to consult a variety of publications, or who want opportunities of procuring new books. It appears to be in general executed with tolerable correctness; though, in some of the articles, we observe that the editor has omitted the mention of recent facts: such, for example, as the efficacy of Digitalis in some cases of Hæmorrhage. Other deficiencies might be pointed out: but we can recommend the book, on the whole, as a safe guide, as far as it goes; and as conveying, in a cheap form, a great diversity of information.

POLITICS, &c.

Art. 39. *A Vindication of the Convention lately concluded between Great Britain and Russia*. In Six Letters addressed to ——. Third Edition. 8vo. 3s. Wright. 1801.

In laying down the law of nature and nations, or universal law, Publicists cannot supersede the necessity of specific conventions and treaties between states: but the principles, which they establish, ought to form the ground-work of these agreements. In the pamphlet before us, it is contended that such has been the case in the convention lately concluded between this country and Russia; every part of which is here ably discussed and vindicated:—but it may be observed that this is only the *English* commentary on that important convention; and that some of its clauses may receive, from an ingenious Russian, Dane, or Swede, a very different construction. We shall

shall not undertake particularly to discuss its merits: but it appears to us to display the moderation of our Government; and to have been drawn up in such a manner as to maintain, on the part of neutrals, the principles of innocent commerce, while it at the same time affords to belligerent powers that security against illicit supply, which the natural law of warfare always requires. Considering the unrivalled superiority of our navy, and the splendid victory which preceded this convention, it is probable that we might have imposed on the Northern Powers other restrictions: but moderation and equity are always the dictates of the truest wisdom. By inserting unreasonable conditions in treaties and conventions, we gratify our own pride at the expence of the good opinion of surrounding nations; and, in the very act of giving peace, we sow the seeds of future wars.

Art. 40. *A Second Address to the Proprietors of the Bank of England Stock.* By Alexander Allardyce, Esq. M. P. one of the Proprietors of the Bank of England. 4to. 4s. 6d. Richardson. 1801.

Pursuing, with equal intrepidity, the course marked out in his first Address (see M. Rev. vol. xxv. p. 349.) Mr. Allardyce here maintains that 'the affairs of the Bank are not managed as they ought to be; and that the proprietors do not derive such extensive benefits from their concerns in it, as they are by law, by reason, and by justice entitled to.' He is of opinion that the Directors are bound, by the charter, to declare a dividend on the *whole* of the profits of the corporation, for the time being; and that, if this were done, the dividends in a short time would be above 12 per cent. per ann.; and the price of stock above 300 per cent.

This second Address, like the preceding one, is accompanied by a long Appendix, forming two-thirds of the pamphlet, and containing a number of interesting and amusing papers, viz. The author's letter to the proprietors, and notice given to the Governor, &c.—The case relative to the Bank of England, submitted to Mr. Mansfield, with this able lawyer's opinion on it.—The demand made in a General Court for the production of Accounts.—Extract from the Report of the Select Committee of the House of Commons respecting the loan of 1796.—Extract from a list of the names and sums subscribed to the loan of 1797. Account of the value of exports for five years, ending 5th Jan. 1801.—Amount of Bank notes in circulation—of money advanced by the Bank to Government—of the National Debt,—and on the duties and powers of the Court of Directors, Proprietors, &c.

Art. 41. *Facts explanatory of the instrumental Cause of the present high Prices of Provisions:* formerly communicated in a Letter to George Cherry, Esq. then one of the Commissioners for Victualling the Navy; with Observations thereon. By George Butcher, late Clerk of the Dry Stores, at his Majesty's Victualling Office, Deptford. 8vo. 1s. 6d. Scott.

This is a pointed attack on the Commissioners and subordinate servants of the Victualling Office, from one who has been removed from a situation which he once held in it. Mr. B. represents himself as having been honest and conscientious in the discharge of his duty, and dismissed, disgraced, and nearly ruined on account of this very honesty.

honesty. If his representation of facts may be credited, it is possible that the conduct of the Board may have had considerable effect in raising the price of provisions: but experience has taught us, that accounts of transactions by hurt and irritated men must be admitted with caution. To the charges of partiality exhibited against the Victualling Office, in the business of contracts, is subjoined this general remark; that, 'unless some powerful interference from legislative authority shall soon take place in the regulation of the corn-market, to stop the alarming proceedings of monopoly and extortion, we can expect no good effects from the bounty of Providence.'

Art. 42. *Proposals to Government*, for establishing that System of Regulations most favourable to the Keeping the Price of Corn at what it ought to bear; from the Quantity of Corn grown annually being accurately ascertained; for the best Mode of giving such Assistance to the Cultivators of the Waste Lands, as shall be safest to the Country, and most advantageous to them. With Reflections on the Advantages and Disadvantages of Country Banks; also, on the Mode and Expediency of bringing Gold into Circulation in this Country, equally in Bullion as Coin. 8vo. pp. 54. 2s. Printed at Gloucester. Sold by Longman in London. 1801.

The *Price of Corn*, *Waste Lands*, and *Country Banks*, have been so repeatedly mentioned as subjects which have a reference to each other, that an author will deem himself justified in discussing them together.—The first, especially at the present time, is of peculiar interest: but it is easier to lament the evil of high price than to propose an adequate remedy, since it is evidently produced by a combination of causes. A system of regulations is here proposed, to ascertain in every parish the exact quantity of corn grown, by putting the farmers under a kind of excise-law: but we do not perceive how this would check monopoly in the corn-market, or induce the farmer to take a low price when he can obtain a higher.—To facilitate the cultivation of our waste lands, this author recommends that farmers should be assisted by a public loan, (he thinks that it would require throughout Great Britain the sum of 20,800,000*l.* to be advanced,) and that country bank notes should be employed as the medium.—Lastly; as to bullion, he advises that the Directors of the Bank shall permit the merchants to keep with them a bullion account, with power of transfer to other accounts, of the whole or part; so that bullion may become, to the exchanges and commerce of this country, what bank-money was at Amsterdam.

MISCELLANEOUS.

Art. 43. *Angling in all its Branches reduced to a complete Science*: being the Result of more than forty Years' real Practice and strict Observation; throughout the Kingdoms of Great Britain and Ireland. In 3 Parts. 1st, describing the Counties of England and Wales, and Scotland, in Alphabetical Order; the Rivers and other Waters which they contain; together with those of Ireland; the Fish they produce; &c. &c. 2dly, A full Description of

of the different Kinds of Fish taken by Angling, their Natures, Haunts, &c. &c. 3dly, A List of Artificial Flies (the completest Collection ever yet known) which will take Fish in all Waters: Night Fly fishing. Natural Fly-fishing, &c. &c. The whole forming a Work of real Utility, comprising Objects too numerous to be detailed in a Title page, and of a very different Nature from those insignificant little Pamphlets hitherto published. By Samuel Taylor, Gent. 8vo. pp. 300. 5s. Boards. Longman and Co. 1800.

On the subject of this work, we may say, purloining a little from Dryden,

“Old as we are, for wearying sports unfit,
The pow’r of *Angling* we remember yet;”

and though we cannot wade in the Thames, being forbidden by the *qualified* Sir Robert Rheumatism and Lord Gout, and slog it from Abingdon to Chertsey for trout and salmon, yet we can hobble along its banks, and rove for a perch; or we can sit quietly in a punt and turn the water into blood with barbel, roach, and dace. In our vernal days, when our eyes were as bright and sparkling as the brooks, we, too, could dress an artificial fly, from the living pattern, even to the *estimation of a hair*; and we could throw it, also, with a scientific nicety, within the circumference of a claret glass; to which precision we were brought by a practice in our boyish days, of throwing out our line to its utmost extent on a bowling green, before we were permitted to attack the stream, and lose our flies by the ardour of whipping. This necessary practice was considered by old Nash, the miller of Denham, (the best fly fisher that we ever saw,) as the *Horn Book* of a *King Fisher*.—Now we cannot, indeed, however much it may be our wish, travel far hence, where

—“Through pastoral Stafford
Ruins the brawling Trent,”—

but we can mount our *taxed cart*, and accomplish a gentle *meandering* excursion; or, reposing in our great chair, we can see in our “mind’s eye” all the extensive prospects of sporting pleasures, which Mr. Samuel Taylor here presents to view.

To come more to the point.—In his preface, Mr. Taylor sings the praises of this diversion, asserts the deficiencies of former treatises on the subject, and proclaims the superiority of his own. His work, he says, ‘is all written from real knowledge, so that he thinks he may without vanity justly intitle it, “angling reduced to a complete science;” and the whole is so interspersed with remarks and little pleasing anecdotes, that the reader will be agreeably surprised and entertained.’ We must confess that we have met with no such *agreeable surprise*, for these *little pleasing anecdotes* have wholly escaped our observation: but the general merit of the work must be acknowledged; and we shall manifest our opinion of its claims to notice, by descending to particulars in several instances which call for remark.—The descriptions of the counties are brief, and confined almost wholly to the rivers.

P. 18. We are surprized that Mr. Taylor does not mention the Fordytch Trout, so remarkable for their size and colour, and for never having been known to take a Fly. We advise him to make a trip, and try them with all his trout flies; and if he succeeds in catching one, we will allow him to say even more in favor of himself than he has already advanced. Many of them, we believe, have been taken near Canterbury, but not with a Fly.

P. 19. The White Bait, in our judgment, is not the fry of the smelt, but a genus of itself; for we have frequently found these fish full of roe.

Mr. T. has omitted Mawm Taum, so famed for Perch of a great size, and most of them *blind*,—a wonderful circumstance in fish of prey! We believe that the water is in Lancashire.

P. 24. It is not known that a *Lamprey* was ever caught in the Thames: but there are *Lamperns* in great plenty, which have for many years been sold to the Dutch, to bait their hooks for turbot.

P. 29. Mr. T. gives his opinion that, though our pickled salmon is called *Newcastle Salmon*, little or none is cured there, Berwick being the principal source of our supply of this article. We know, however, that great quantities of salmon are pickled at Newcastle.

P. 136. Small Eels, or elvers, in the Thames, are called Shafflings; of which an excellent soup is made at Wandsworth. Mr. Taylor here announces his discovery that eels are *viviparous*, which reflects credit on his industry and sagacity. It has long been fiercely contended that they are *oviparous*: but Mr. T. has laid his opponents, with the young eels, in the mud.

The Bleak, or Whiting, (p. 209.) is called by the fishermen on the Thames the *mad* bleak, owing to its running on the surface as if in play: but we believe that this action arises from pain and agony; for on opening them we have found, twisted round their entrails, a long flat worm, (resembling a Tape worm,) which in a short time destroys them, of the colour of pus, and tough.

The directions for procuring and preserving baits (p. 214.) are excellent; as are those for making rods and hair lines; and Mr. T. is evidently an adept at making flies. We apprehend, nevertheless, that his list of artificial flies, though said to be *the completest ever known*, is still deficient; and there is a book by one Bowler, who lived by angling and making flies, which is worthy of being consulted on this head. No directions are here given for *throwing* the natural fly; which is by far more delicate and difficult, than with any artificial fly whatever.

Our observations, however, are growing too extensive; and we must conclude with the general remark that this book well deserves the perusal even of an experienced angler;—though, as somebody says in a play,—“*Metinks, the gentleman protests too much.*”

Art. 44. *Narrative of the Life of Sarah Shade, born at Stoke Edith, in Herefordshire*, containing many well authenticated and curious Facts, more particularly during her Voyage to the East Indies, in the New Devonshire Indiaman, in the Year 1769; and in travelling that Country in company with *the Army*, at the Sieges of Pondicherry,

Pondicherry, Valore, Negatapatam; &c. &c. Together with some extraordinary Account of the Ferocity of Tigers, Jackals, Pish Dogs, Vultures, &c. Taken down by some Gentlemen; and published for her Benefit. 8vo. 2s. Hatchard, &c. 1801.

The "simple annals of the poor" may sometimes merit perusal; as well as the more distinguished memoirs and accounts of persons who have moved in higher ranks; and, to the humane and benevolent reader, the story of this humble narrator (a soldier's wife) may prove as interesting as that of some celebrated hero, or the pompous memoirs of a *Cleopatra*.

The varied narrative of this good woman abounds with unadorned but striking details of the accidents and reverses of fortune, to which she seems to have been destined from her earliest years, until the time of her return from India to her native country, and her resting, from foreign toils and troubles, in a quiet lodging room, at No. 5; Little Chesterfield Street, Mary-le-Bon; where she hopes to find some alleviation of her past troubles, and 'relief from those wants occasioned by long illness,' of which the *preface* informs us.

The anecdotes relative to *transactions* in the East Indies, and particularly to the wild animals mentioned in the title, are not altogether unworthy of the notice of readers who are curious with respect to the natural history of that part of the Creation.—The whole recital, we think, wears so much of the semblance of truth, that we do not find ourselves at all disposed to entertain doubts of poor Sarah's veracity.

Art. 45. *Gymnastics for Youth*, or a Practical Guide to healthful and amusing Exercises for the Use of Schools. An Essay towards the necessary Improvement of Education, chiefly as it relates to the Body; freely translated from the German of C. G. Salzmann, &c. Illustrated with Copper-plates. 8vo. 9s. Boards. Johnson. 1800.

This dissertation on the species of exercise proper for childhood and youth may afford considerable instruction to parents and tutors. The directions are judicious; and they are written in a more lively style, and in better English, than most German compilations, or translations from the German. The work is illustrated with several well-designed prints.

We observe nothing, however, that is particularly new in this work, excepting the author's recommendation of funambulism as an exercise. Several of the exercises in use among English school-boys might have been advised; such as cricket, fives, &c. Every thing which tends to promote the strength, activity, and health of the rising generation, is undoubtedly of the first importance to society.

Art. 46. *Remarks on the Character of Richard the Third*, as played by Cooke and Kemble. 8vo. 1s. 6d. Parsons. 1801.

To obviate any suspicion of partiality, this remarker on a case of supposed dramatic competition sets out with a declaration that he has 'no theatrical connexion, and is not so well acquainted with any dramatic

dramatic author or performer, as to speak to him; if he sees him."—In comparing, however, the difference of *manner* in which the difficult part of *Richard* has lately been performed by Mr. Kemble at Drury-Lane, and by Mr. Cooke (a new actor) at Covent Garden, he appears to have written under the influence of a strong prepossession in favour of the latter: yet he seems to have been an attentive observer of the performances of the rival heroes, (for *as rivals* he considers them,) and to have offered some just criticisms. As we have not had the pleasure of seeing these competitors for dramatic pre-eminence, on the occasions here brought into question, we cannot hazard any general opinion on the justice of the praise which is here bestowed on Mr. C., and of the strictures which are passed on the performance of so eminent an actor as Mr. K.

Art. 47. *Kemble and Cooke: or, A critical Review of a Pamphlet published under the Title of "Remarks on the Character of Richard the Third, as played by Cooke and Kemble."* With other critical Remarks on the Performances of these two Gentlemen. 8vo. 1s. 6d. Westley, &c. 1801.

The writer of this *Reply* to the foregoing *Remarks* professes, like his antagonist, to be free from all dramatic connections, &c. &c. but, nevertheless, he seems to be feelingly alive to the freedoms which have been taken with Mr. K.'s theatrical character; and he accordingly treats the remarker with the most sovereign contempt.

Though we can never approve the introduction of personal reflections and harsh epithets in any literary controversy, we must acknowledge the ability with which the present writer has discussed the points in dispute between him and the champion of Mr. C.—He has here, however, given only the *first part* of what he proposes to lay before the public, on the subject of this winter's theatrical campaign.

CORRESPONDENCE.

We are indebted to the attention manifested towards us by Mr. Tate, in the transmission of his third and fourth letters: but he must excuse us from entering into an examination of their contents. We do not observe, indeed, that they require any addition to our former remarks. The examination must be complete, and *every* passage must be adduced, before the point can be settled. With regard to Terentianus Maurus, we certainly were not forgetful of him, nor of other writers on this subject.—If Mr. Tate should publish his proposed work, it will in course claim its due notice in our pages: but we really cannot devote time and space to elaborate and protracted epistolary discussions.

A letter from Mr. Howe has reached us, in which he complains of our having misrepresented the doctrine of his *Sermon on the Millennium*, (see our Review for September last, p. 103). Had this been the case, we should rejoice, as much as he could do, in an opportunity

opportunity of rectifying it: but the fact is that he has completely misconceived the drift of our strictures; which were not pointed at a figure of speech, or a shade of doctrine, but against the authority adduced by the preacher, and the use which he made of that authority. We undertook not to decide whether the *reign of Christ on earth*, to which he alluded, should be taken literally or figuratively; we meant only to charge him with having introduced an *unnecessary and mystical phrase*, respecting the predicted prevalence of truth and righteousness. *Millemum* is no more a term of scripture than *Trinity*; and we must remind him that his expression—‘the reigning of the SAINTS with Christ for a thousand years’—implies rather *selection* than *universality*; rather the distinction of a few by righteousness, than the general diffusion of it through all nations and ranks of men.

Further to manifest our gratitude to Mr. Howe for his long letter, we shall remark that we believe that no one who is enlightened by true criticism and a knowledge of the history of the sacred text, and who is an advocate for Christianity purified from its corruptions, will make the Apocalypse the basis of his scheme of Divinity, or deem it sufficient to establish any separate dogma. A Dr. Slop, in order to support his doctrine of seven Sacraments, might be in raptures with this book; which furnishes him with—seven Spirits of God,—seven candlesticks,—seven vials,—seven wraths,—seven plagues,—and seven thunders: but what could induce Mr. Howe, in the pursuit of the pure and simple doctrine of Jesus of Nazareth, to hunt for it among such grotesque and uncouth mysteries:—in a book which, whatever may be its use, ought not to be employed *ad auctoritatem dogmatum confirmandam*.

Our French Correspondent at Richmond, who signs *A Patriot*, mistakes the nature of our work; which is not a *Magazine*, adapted to the insertion of such communications as that with which he has favoured us. His introduction and recommendation of a particular work, also, throw a suspicious air over his observations, which may in themselves be well founded.

G. H. is informed that the remark, which he wishes to trace, was repeated by us from the author of the work reviewed in the article to which he refers, and who made no reference to the particular source whence he borrowed it.

Mr. Roe's work is at present *sub judice*, but we have never seen the other publication which he mentions.

☞ In the Review for October, p. 118. l. 16. for ‘general one,’ r. *general tone*.—P. 187. l. 10. from bott. put a comma instead of a semicolon after ‘*reputation*,’ and dele the comma after ‘*apathy*.’—P. 204. l. 18, for ‘*humect*,’ r. ‘*humect*.’—P. 205. l. 23. for ‘in hands,’ r. *in the hands*; and in the next line, dele the quotation comma before *A kind*, &c.



THE MONTHLY REVIEW,

For DECEMBER, 1801.

ART. I. *Transactions of the Society instituted at London, for the Encouragement of Arts, Manufactures, and Commerce; with the Premiums offered in the Year 1800. Vol. XVIII. ** 8vo. pp. 500. 9s. Boards. Robson, &c.

NOTWITHSTANDING the establishment of new institutions for the purpose of promoting objects of general utility, the respectable society in the Adelphi continued to obtain a great accession to its members. From this circumstance, we with pleasure infer that the credit and reputation of this public body are in a progressive state: but at the same time that it records its acquisitions, it partakes of the common lot of humanity in having to lament some losses. Among those which it has lately sustained, are to be reckoned the death of its indefatigable and worthy Secretary, Mr. Samuel More; and that of Mr. George Wilson, who generously devoted himself to aid the assistant Secretary, Mr. Thomas Taylor, till the election of a successor to Mr. More took place. To the memory of this gentleman, an honourable tribute is paid by the present Secretary, Mr. Charles Taylor, who was elected in February last; and who, in the preface to this volume, has exhibited a favourable specimen of his abilities.

Mr. T.'s first office is to express the gratitude of the Society for a bequest of 500l. by the late Robert Nettleton, Esq. of Camberwell, Surrey, (whose portrait forms the frontispiece to the present volume,) who had been an early member, and of whom a short biographical sketch is given. He was born at Hull about the year 1694; and after having resided some time at Königsberg and St. Petersburg, he came to settle in London about the year 1735, and died in July 1774, bequeathing the above sum to the Society after the decease of his widow. His character is thus delineated:

‘Blessed with a good natural understanding, improved by a classical education; he was conversant with the best Greek and Latin

* For an account of vol. xvii. see M. R. vol. xxxi. N. S.

authors, and attentive to mathematical and other scientific studies. In all his transactions, he was most upright and honourable; in his turn of mind, calm and benevolent; warmly interested for the welfare of his country, kind and hospitable to his friends, and of so bountiful a disposition to the poor, that, during the whole course of his business, he set aside a tenth part of his profits for the purposes of charity; which plan he so much extended in his latter years, as to give away a fourth, or even a larger portion of his income.*

After having discharged the several debts of respect and gratitude, the Secretary proceeds to notice the several papers, &c. which constitute the volume before us. This analysis is neatly and concisely executed.

Of the long list of premiums annually published by the Society, as stimulants to ingenious and useful exertions, two only are particularly noticed in the preface. The first is in the class of *Agriculture*, and respects the sowing of spring Wheat and the planting of early Beans; which are matters so worthy of encouragement that they fully justify the new premiums:—the other is in the department of *Mechanics*, and is a renewed premium for a simple apparatus for cleansing chimneys from soot, so as to obviate the necessity of employing children within the flues. This is certainly a very desirable object, both for the sake of the poor boys, and of the housekeeper.

The subject of Fire is closely connected with that of chimneys; and we shall avail ourselves of this opportunity, to remark that we have often been surprized that the important object of stopping the progress of fire has not been prosecuted. By party-walls, we have effectually prevented the demolition of streets by that formidable element. This is a material point gained: but cannot we extend security still farther? Cannot houses be so constructed, that only the room in which the fire breaks out shall be destroyed, or at most only that story? Cannot there be a cheap and effectual contrivance for confining the flames to the upper or lower part of the house; and would not the offer of a premium to carry this idea into effect fall within the views of this Society? In general, fires commence, through the carelessness of servants, in the upper story; and if, on an alarm given, the communication could be cut off between it and the inferior stories, so that the flames could not possibly descend, the most valuable part of the property might be saved; or, supposing the fire to break out below, a secure retreat might be afforded to the family.

From this digression, we return to a consideration of the contents of the Volume before us.

* A compliment is also paid, at the end of the preface, to the memory of the late Mrs. Montague.

The Papers relative to AGRICULTURE are

A letter from Mr. Mee to the Secretary, with an *Account of forty-nine acres and an half sown with Acorns*, on the estate and under the directions of the Marquis of Titchfield.

An *Account of the planting of 400,000 Larches*, on the estate of Thomas Johnes, Esq. M. P. of Hafod in Cardiganshire.

An *account of eleven acres planted with various Forest Trees*, (in all 9665, at the expence of 45l. 3s. 6d.) by the Rev. William Smith, of Craike, in the county of York.

A paper from Mr. John Lake, of Bapchild, near Sittingbourne, Kent, with an *Account of his having planted two Orchards*; one of which, according to the plan of T. S. Dyot Bucknall, Esq. is occupied by standard trees, placed 32½ feet asunder, with two dwarf apple trees between each standard.

A letter from John Cartwright, Esq. of Brothertoft farm, Lincolnshire, detailing his method of *Planting and Drilling Beans, and of sowing the land in the same year with Wheat*. This we believe to be no unusual mode of husbandry, where the land is clean and in good heart.

Sanguine (probably too sanguine) expectations are expressed by Mr. Jones, of Fish-Street-Hill, respecting the improvement of the culture of English Rhubarb, so as to make it equal to that of Turkey. An account is given, with certificates, of his having four thousand and fifty three plants of the *Rheum Palmatum*, or the officinal rhubarb, in a very thriving and promising state, in his grounds in the parish of Enfield.

The next paper contains the process pursued by John Mirehouse, Esq. of Brownslade, in the county of Pembroke, for *Draining and bringing into profitable cultivation a Waste Moor*, containing 274 acres. The whole appears to have been judiciously conducted. The cost was 508l.

The last paper in this class is an account from the Rev. H. Bate Dudley, of Bradwell-Lodge, Essex, of Land gained from the Sea; which was performed by an embankment made by a gang of twelve sea-wallers, in the space of seven months.

At the end of the volume, are additions to the class of *Agriculture*, which we shall notice in this place. They are as follow:

A communication from T. S. Dyot Bucknall, Esq. relative to the causes of *Blight on Fruit Trees*, and to the methods of producing good and certain crops of fruit; being a supplement to his various papers on Orcharding and Blight. With this letter, we find a plate representing niduses of insects, and the ground plan of Mr. Lake's orchard, (noticed above) explanatory of the mode there recommended, for planting dwarf and standard fruit-trees together. Mr. Bucknall has bestowed

much commendable attention on this useful branch of culture ; but we think that he is a little *hobby-horsical* in wishing to use the word 'pulsation' with respect to trees.

A very minute detail next occurs, respecting the method employed by Mr. John Taylor, of Leipsig, in cultivating the *Beet Plant*, and in obtaining sugar from its root, with a syrup yielding melasses and ardent spirit. The utility of this process may be estimated by the following experiments :

' One hundred and ten pounds, of Beet-roots, the *Beta cicla* of *Linnaeus*, or white English Beet, washed, peeled, cleaned, and then grated, gave a mass which weighed eighty-seven pounds ; out of which were pressed forty-one pounds and a half of juice, which was boiled with twenty ounces and a half of charcoal powder : this, when filtered and evaporated down until crystallized, produced full five pounds of a brownish yellow grained sugar, also five ounces of Brown sirup.

' The above brown sugar, after being dissolved in six pounds of lime water, mixed with one pound of blood, then boiled, filtered, and afterwards evaporated, yielded four pounds five ounces and a half of purified brown sugar, and six ounces and a half of sirup.

' The four pounds five ounces and a half of sugar thus prepared, were again dissolved in six pounds of lime water, mixed with one pound of milk, then boiled for a quarter of an hour : during the boiling, a small quantity of white wine vinegar, and a little more milk, were added ; the saccharine matter was filtered, and treated as before ; the product was four pounds of well-grained white powder sugar.

' The residuum after pressure, the brown sirups of the two first processes, and the remains of the filtrations, weighed, when collected, forty pounds : they were mixed with one quart of yeast and eighty quarts of water, heated to 40 degrees of *Reaumur's* thermometer, or 112 of *Fahrenheit's*, and, after fermenting forty-eight hours, were distilled. They furnished, at the first distillation, fifteen quarts of weak spirit, which, on a second distillation, gave eight quarts of a better ; from which, when rectified, were produced three quarts and a half of spirits resembling rum.

' From the result of this series of experiments it appeared, that after paying the farmer for the roots, and discharging all incidental expences whatever, a profit was yielded of nearly cent. per cent. on valuing the four pounds of white powder sugar at one shilling per pound, and the three quarts and a half of rum at one shilling per quart.

' It is not to be inferred from these experiments, that the profit from this process will always equal the above ; for subsequent experiments have proved that the crops of Beet-roots cannot always be depended upon, nor do they always yield the same quantity of sugar ; the produce of different years having varied, from two pounds of sugar per hundred weight of roots, to five pounds, according to circumstances which have intervened.'

A description of a steam-house for the purpose of *Forcing Pines*, &c. with an account of the method of *forwarding Vegetation*

ation by means of Steam, is given by Thomas Wakefield, Esq. of Northwich; to which is added a diary by Mr. Butler, relating experiments in a steam-house belonging to Lord Derby. This paper contains many curious facts: but the plate is necessary to a clear conception of the details. It is hinted, in the preface, that a variety of additional remarks on this subject are at present omitted, for want of room.

CHEMISTRY.

This science furnishes only one paper; viz. *an Account of twenty-one pounds seven ounces of Opium, obtained from Poppies cultivated by Mr. Thomas Jones, of Fish Street-Hill, in his plantations at Enfield; and certified, by the testimony of several physicians, to be equal in quality to the best foreign opium.* It must be a great satisfaction to Mr. Jones, after the exertion and perseverance which he appears to have displayed on this occasion, to find his endeavours so completely crowned with success. He complains, however, of the precariousness of our climate; which he considers as the only obstacle to the production of opium in this kingdom. We understand that this drug has also been obtained from the milky juice of Lettuces.

MECHANICS.

An account of the discovery of a quarry of *Mill Stones* at Conway, in North Wales, similar to those which are known by the name of *French Burrs*, by Mr. Richard Bowes. A premium of £100. was adjudged for this discovery; and Mr. Bowes having died in March last, the money was benevolently paid by the Society to his widow and children.

The invention of a Parish or Family Mill, by Mr. Thomas Rustall, of Purbrook-Heath near Portsmouth. The stones of this mill are vertical; and with the assistance of a man and boy, it is said to grind corn very well at the rate of one bushel of wheat per hour.—To this paper, is annexed the account of a *Bolting Machine*; both of which are represented in a plate.

Account of a *Family Oven*, by Mr. Holmes, of Castle Court in the Strand, which he calls a conducting oven; and which is heated, without flues, by means of a solid piece of iron projecting from its side into the fire. It is said to keep continually a baking-heat.

Description and drawing, by Mr. John Snart of Tooley Street, of a *Sliding Lever, fixed to the under side of a Cart*, for the relief of horses when thrown down and entangled in the thills. This is a very humane invention, the want of which is often experienced. The inventor calls it an *Alexippos*. (*A horse-reliever*.)

The two following papers contain descriptions of a *Door or Chest Lock*, by Mr. Thomas Arkwright of Charley Moor, Lancashire,

cashire; and of a *Lever Lock-Bolt for Folding Doors*, by Mr. William Bullock, of Portland-Street. The former is of so peculiar a construction as not only to baffle the efforts of house-breakers and picklocks, but it would puzzle servants to unlock it, should the key be accidentally left in the lock. Without the plate, it is impossible to convey an idea of this invention.

All those who are acquainted with the numerous horrible accidents which happen to riders in carriages, from horses taking fright, or from the reins breaking, will rejoice to read of the invention of an apparatus fixed behind the splinter bar, and communicating with the Coach-box, for releasing horses from the carriage when in full speed. This invention is due to Mr. George Davies; and it appears to succeed well, experiments having been made with it three times before His Majesty in Windsor Park. Great expences are incurred, in building the fashionable carriages of the present times, for patent axle-trees, patent spring-blinds, &c. &c. but an invention of this sort is of most importance, because safety ought to be consulted before shew, expedition, or even comfort. Some improvements may possibly be made in Mr. Davies's apparatus, or a preferable one may be contrived: but we are of opinion that something of the sort should be affixed to all carriages. We know that a contrivance of this nature has formerly been offered to the public: but we apprehend that it has not been sufficiently adopted.

MANUFACTURES.

This class contains but one short paper, describing a *Loom*, invented by Mr. Thomas Clulow, of Old Cock Lane, Shoreditch, for weaving figured ribbands.

NAVIGATION and COMMERCE.

Here also we have only a single communication, but it is a very important one; relating to an *under-ground Inclined-Plane*, planned and contrived by the Duke of Bridgewater, and executed under his immediate inspection on his navigation at Walkden-Moor, Lancashire. This magnificent work was begun in Sept. 1795, and was finished in Oct. 1797. The Rev. Francis H. Egerton, the author of the paper, after having explained the necessity of this undertaking, on account of the Duke's under-ground navigation being on two levels, thus proceeds:

' Before a communication was made by an inclined plane, the coals were discharged by hand from the boats on the higher level, and were let down the pits in tubs by an engine and break-wheel into those upon the lower. To convey the boats themselves from the canals of the higher level into that of the lower, was the intent of making this under-ground inclined plane. By the help of this machinery,

machinery, the whole business is now done at once, without discharging or damaging the coal, and at one fourth of the expence : for the boats of the higher level are bodily let down the inclined plane, and are floated from the foot of it through nearly three miles, in a strait line, of the lower level canal, into the open navigation at Worsley : and, whereas they were before obliged to be drawn up to the surface of the earth at great inconvenience and expence, to be repaired at a workshop on Walkden Moor, they now come of themselves, in their course of business, to be repaired at the great dock-yard at Worsley.

‘ The place where the inclined plane is constructed, is adapted in a singular way for the purpose. There is a bed of white rock, or grit, eight yards twelve inches deep, which dips one in four, lying exactly in the direction most convenient for the communication between the two levels ; which bed of rock is hollowed into a tunnel, driven upon the rise of the metals, by blasting with gunpowder, and working it down with wedges and hammers. In this tunnel, formed through a rock reaching from the lower to the higher level, the inclined plane is fixed ; and, by its being in the heart of a rock, the whole workmanship can be pinned, secured, and compacted together at the top, bottom, and sides, most effectually :—an advantage which no inclined plane above ground can have, and which renders this a singular production, no where perhaps to be imitated.

‘ The run of the inclined plane is one hundred and fifty-one yards, besides eighteen yards, the length of the locks, at the north or upper end : and the fall is one in four, corresponding with the dip of the rock.

‘ Of these one hundred and fifty-one yards, about ninety-four yards are formed into a double waggon-way, in order to let two boats, namely, the empty and the loaded boat, pass up and down ; and are divided by a brick wall, supporting the roof, in which are openings for a person to escape out of the way of the boats ; which double waggon-way joins in one, about fifty-seven yards from the lower level.

‘ The whole width of the double waggon-way is nineteen feet ; and of the single waggon-way, after the junction, ten feet.

‘ These waggon-ways are supplied with iron rails, or gullies, laid on sleepers, down the whole run ; and the height of the roof, above the iron rails, is eight feet.

‘ At the top of the inclined plane there is a double lock, or rather two locks, side by side, formed in the heart of the same rock, which deliver the loaded boats from the higher level down the inclined plane, and receive the empty boats from the lower.’—

‘ The weight of neat coal, contained in the loaded boat, is about twelve tons ; the boat weighs about four tons : and the carriage, or cradle, in which the boat is placed, when conveyed down the inclined plane, is about five tons :—in all about twenty-one tons.

‘ At this inclined plane thirty loaded boats are now let down, with ease, in about eight hours ; that is to say, four boats are let down in a little more than an hour. The boats used in these collieries are of different sizes and dimensions ; some will carry seven, some eight and a half, some twelve tons.

‘ The weight of neat coal, independently of the weight of the carriage and boats, which is let down the inclined plane, in twelve-ton boats, in eight hours, will consequently be three hundred and sixty tons. The weight of the carriage, suppose five tons, let down in the same time, will be one hundred and fifty tons; and the weight of the boat, suppose four tons, thirty times down, in eight hours, will be one hundred and twenty tons:—in all six hundred and thirty tons down in eight hours.’

COLONIES and TRADE.

Under this head we have also a solitary paper, respecting an undertaking for the accomplishment of which the Society, in 1792, had offered a premium, viz. to discover a passage by land from the North-west parts of Upper Canada to the South Sea, between Nootka Sound and the Straits at Kamschatka; or to the navigable part of any river that disembogues itself into the South Sea, within those limits. This object was accomplished in 1793 by the “open, bold, and brave” Alexander Mackenzie, Esq. who, setting out May 9, from the Peace River, in lat. 56°. 9’ and long. 117°. 43’ West from Greenwich, penetrated to the sea coast of the Northern Pacific Ocean, or to Middleton Sound, in lat. 52°. 23’ and long. 128°. 15’ West, and, commencing his return July 23, by the same route, reached the place from which he had taken his departure, August 24. For this service, the gold medal of the Society was adjudged to Mr. Mackenzie.

Such are the contents of this volume; in addition to which, the Secretary, in his preface, informs us of a most valuable discovery made by the Rev. William Hoskins, of an Iron-Mine in Cornwall, proper for making excellent Steel. We congratulate the country on this acquisition, and on the efforts of this Society to promote useful inventions. We rejoice to find that its funds are in a flourishing state; and that the names of *Ladies* of great merit have recently been added to the list of its members.

ART. II. *Memoirs of the late Mrs. Robinson*, written by herself. With some Posthumous Pieces. Small 8vo. 4 Vols. 1l. 1s. Boards. Phillips. 1801.

“ *Formam optat modico pueris, majore puellis
Murmure, cum Veneris sanum videt anxia mater
Usque ad delicias votorum.*”—

JUV.

THE memoirs before us present an additional instance of the vanity of such wishes, and of the sorrows which attend indiscreet and unprotected beauty. While loveliness of person excites a thousand favourable prepossessions, we forget the

the dangers to which it exposes the possessor; and are unwilling to think that *Rara est concordia formæ atque pudicitia*. Such, however, is the lesson of experience. The fascinating charm of beauty is unfortunately associated with the inexperience and thoughtlessness of youth; and if the enchanting female be unshielded by parental care, or commences her career by an imprudent connection, her future history will excite commiseration rather than envy, and perhaps may be such as virtue would wish to conceal. We are not desirous of commenting on instances of this kind: but when ladies write their own memoirs, we must perform our task with as much mildness and delicacy as possible.

The beautiful, ingenious, and unfortunate Mrs. Mary Robinson has thrown over the present account of herself all the air of a novel. She labours to touch the feelings and to melt the heart of the reader. With the liveliest interest, we accompany her from her childhood in a house near the Minster at Bristol, to her connection with the *Royal Florizel*; and after having perused her solemn avowal, that 'these pages are the pages of truth unadorned by romance,' it would be unfair to doubt her veracity: but, as self-deception casts her veil over the brightest minds, and as it is natural on a review of such a life as that of Mrs. Robinson to attempt to soften the censure (in part certainly unmerited) of the world, and to convert reproach into compassion, it is our duty to remind the reader that it is almost impossible to prevent the *Apologist*, under such circumstances, from invading the office of the biographer. That she had herself a favourable opinion of the effects of these memoirs, in clearing her fame, is evident from the solemn injunction which she imposed on her daughter, Miss Robinson, a few days before her death, to give them to the world. In some respects, these pages will be admitted as a vindication of the fair author. She may have been one "more sinned against than sinning," in her matrimonial connection:—she may not have found the fidelity and affection which she merited;—and it may be very true that 'she was subjugated by circumstances more than by inclination':—but, though this be the truth, it may not be the *whole truth*; and it would be unjust to her husband to pronounce on her statement without hearing his reply, or that of his friends. It is to be lamented, however, that the narrative written by herself abruptly breaks off in the most interesting part.—Though the child of affliction, and exposed to the severest trials, she asserts that, previously to her attachment to the P—, she had rigidly preserved her matrimonial integrity: but, even if she were acquitted in the court of chastity, some blame must attach, according to her own details, for
needless

needless expence, and frequent and dangerous exposure. If she were satisfied with the admiration of her husband, and knew that he was not rich, why did she spend so much in dress; why so frequently resort to public places, and receive the visits of noblemen of libertine characters? Mrs. R. played the part of a *pretty* but not of a *prudent* wife. It is true that she married very young, and was early deceived by her husband; yet in the first overtures of the P—, she seems to have made few scruples, and to have flattered herself with being his declared and acknowledged mistress.

Here, as we are proceeding to the important *denouement*, Mrs. R. ceases to be her own historian (p. 52. of vol. ii.), and the remainder of the memoir, to the period of the fair *Perdita's* departure from this world of vanity and sorrow, is said to be written by *A Friend*. This continuation is short, occupying no more than 110 pages. The subject of Mrs. R.'s connection with the P— is resumed; and a long extract is given from a letter written in 1783. Her visit to France, after the dissolution of the royal attachment, is also related; and her subsequent connection with Col. Tarleton is mentioned in a note.

Mrs. R. was born at Bristol (her maiden name was Darby) 27th of November 1758, died December 26, 1800, and was buried according to her own direction in Old Windsor church-yard. On her monument, the following *Lines*, written by herself, are now, it is said, engraved on her monument.

O Thou! whose cold and senseless heart
Ne'er knew affection's struggling sigh,
Pass on, nor vaunt the Stoic's art,
Nor mock this grave with tearless eye.

For oft when evening's purple glow
Shall slowly fade from yonder steep,
Fast o'er this sod the tear shall flow
From eyes that only wake to weep.

No wealth had she, no power to sway;
Yet rich in worth, and learning's store:
She *wept her summer hours away*,
She heard the win'try storm no more.

Yet o'er this low and silent spot,
Full many a bud of Spring shall wave,
While she, by all, save ONE, forgot,

SHALL SNATCH A WREATH BEYOND THE GRAVE!"

The promise to publish, solemnly given by Miss Robinson to her dying mother, extended only, we suppose, to that part of the memoirs which is written by Mrs. R. herself; and perhaps it might

might have been as well, had the account of this victim of misfortune been left a mere fragment. Her cup of life was deeply tinctured with bitter ingredients. We admire her genius, we commiserate her sorrows, and we would draw a veil over her indiscretions.—The friend, who has continued her history, has subjoined the following liberal remarks :

‘ Respecting the circumstances of the preceding narrative, every reader, as influenced by his preconceived habits and opinions, must be left to form his own reflections. To the humane mind, the errors of the unfortunate subject of this memoir will appear to have been more than expiated by her sufferings. Nor will the peculiar disadvantages by which her introduction *into* life was attended, be forgotten by the candid ; disadvantages, that, by converting into a snare the bounties lavished on her by nature, proved not less fatal to her happiness than to her conduct. On her unhappy marriage, and its still more unhappy consequences, it is unnecessary to comment : thus circumstanced, her genius, her sensibility, and her beauty combined to her destruction ; while, by her exposed situation, her inexperience of life, her tender youth, with the magnitude of the temptations which beset her, she could scarcely fail of being betrayed.

“ Say, ye severest——

—— what would you have done ? ”

‘ The malady which seized her in the bloom of youth, and pursued her, with unmitigable severity, through every stage of life, till, in the prime of her powers, it laid her in a premature grave, exhibits, in the history of its progress, a series of sufferings, that might disarm the sternest, soften the most rigid, and awaken pity in the hardest heart. Her mental exertions through this depressing disease, the elasticity of her mind and the perseverance of her efforts, amidst numberless sources of vexation and distress, cannot fail, while they awaken sympathy, to extort admiration. Had this lovely plant, now withered and low in the dust, been, in its early growth, transplanted into a happier soil—sheltered from the keen blasts of adversity, and the mildew of detraction, it might have extended its roots, unfolded its blossoms, diffused its sweetness, shed its perfumes, and still flourished, beauteous to the eye and grateful to the sense.

‘ To represent the character of the individual in the circumstances of his life, his conduct under those circumstances, and the consequences which they ultimately produce, is the peculiar province of biography. Little therefore remains to be added. The benevolent temper, the filial piety and the *maternal tenderness of Mrs. Robinson* are exemplified in the preceding pages, as her genius, her talents, the fertility of her imagination, and the powers of her mind, are displayed in her productions, the popularity of which at least affords a presumption of their merit. Her manners were polished and conciliating, her powers of conversation rich and varied. The brilliancy of her wit and the sallies of her fancy were ever tempered by kindness and chastened by delicacy. Though accustomed to the society of the great, and paying to rank the tribute which civil institutions have

rendered its due, she reserved her esteem and deference for those only whose talents or whose merits claimed the homage of the mind.

‘ With the unfortunate votaries of letters she sincerely sympathized, and, not unfrequently, has been known to divide the profits of her genius with the less successful or less favoured disciples of the muse.’

Vol. III. contains 14 Numbers of some periodical essays by Mrs. R. called the *Sylphid*, which appeared in a morning paper, and which, previously to her last illness, she had prepared for separate publication: also the fragment of a novel, intitled *Jasper*; and the *Savage of Aveyron*, a poem.

Another poem, in two books, intitled *The Progress of Liberty*, occupies the former part of vol. iv.; and the remainder consists of tributary lines, inscribed to Mrs. Robinson by her different friends, with very few of her own. Three sprightly letters addressed to her by Dr. Wolcot (*alias* Peter Pindar), the last written only eight days before her decease, occur at the end of this miscellaneous contribution.

The verses on *the Progress of Liberty* display richness of imagination, but in some places they are too wild and in others too diffuse. We shall not injure the fame of the writer, however, if we transcribe the conclusion of this posthumous publication. After having surveyed the state of Society on the Continent, her Muse finishes with a picture of her own country :

‘ Now turn my Muse

To ALBION’s plains prolific : where serene,
Temper’d by REASON, Liberty delights
To warm th’ enlighten’d mind ! Where, since the days
When her bold Barons ratified their deed,
Freedom has smil’d triumphant and secure.
Oh ! favour’d Isle, long may discordant broils
Be sever’d from thy shores ; may howling war
Blow its dread blast, far, ALBION, far from thee,
While thy white ramparts tow’ring o’er the waves,
Shall bid thy foes defiance ! Here the hind
Enjoys the well-earn’d produce of his toil,
And sleeps secure, protected by those laws
FORM’D FOR THE PEASANT AND THE PRINCE ALIKE.
Still may thy infants, Albion, instinct taught,
Prattle of Liberty : the sun-burnt swain,
As slow the flaming torch of day retires,
Sing the loud strain of freedom and of joy.
Still may no wrongs invade his midnight dreams,
No guilty wish contaminate his will,
To violate the laws : for ’tis the sting
Of keen oppression, that engenders crimes,
And brutalizes man. The ravenous wolf
Feeds not upon his kind, — his murderous will

Being

Being but instinctive. Lions prowl abroad,
Famish'd and watchful of the desert path
Where the lone traveller passes : on his kind
He scorns to fatten : none but THINKING MAN
Prays on his species ; sheds his brother's blood,
And while opposing, still oppos'd, derides
'The pleading tongue of Nature. Let the brave
Turn to the clay-built hovel of Content,
Where Peace and Reason consecrate the toils
Which Virtue's sons endure : See ! at their door
No shiv'ring pilgrims wait the murd'rous glance
Of scowling Superstition. No dark fiend
Dashes the frugal cup with terror's gall,
Or from the fever'd lip, with churlish hand,
Snatches the cooling draught. No bigot wrath
Starves the poor sinner into faith ; or steals
From fainting toil that wholesome nourishment
Which Nature meant for all, nor marked the day
Nor hour of recreation. ALBION ! still
May thy brave peasantry indignant turn
From priestcraft, ignorance, and bigot fraud,
To view in Nature's wonders, Nature's God !
For where can man so proudly contemplate
Th' OMNISCIENT's pow'r, as in the tablet vast
Of infinite creation ? Ev'ry breeze
Seems the soft whispering of Nature's voice
Fraught with the lore of Reason. Ev'ry leaf
That flaunts its vernal hue, or eddying falls,
Its fibres wither'd by autumnal skies,
A moral lesson shews. The rippling rill
Prattles with Nature's tongue. The ev'ning gale,
Moans the decline of day : while Twilight's tears
Fall on the dusky wings of chilling Night,
Spreading to hide its triumphs. The vast dome
Gleams with unnumber'd stars ; the prying eyes
Of those bright centinels, etherial borne,
That watch the sleep of Nature. O'er the main,
In ebon car aerial, lightning wing'd,
The pealing thunder whirling his vast flight,
A short-liv'd fiend, gigantic born, the son
Of Equinox, rides furious. The free'd winds
Howl as he passes by. The foamy waste
Bounds with convulsive horrors ; while the waves
Lash the loud-sounding shore. O ! Nature's God !
These are the varied pages of that lore
Which REASON searches : These the awful spells
That seize on all the faculties of man,
And bind them to allegiance. FOR THAT POW'ER
Which speaks in mighty thunder wakes the soul,
Breathing in balmy gales ; is seen alike
In the swift lightning and the ling'ring hue.

Of Ev'ning's purple veil; looks thro' the stars
 And whispers 'mid the solitude sublime
 Of thickening glooms nocturnal; from the east
 Flames forth his burning eye: the grateful earth
 Welcomes his glances with her boundless stores,
 And robes herself in splendours: odours rich
 And colours varying decorate her breast,
 To greet the Lord of Nature: forests wild
 And oceans multitudinous unfold
 Their wonders to his gaze! Then why should Man
 Creep like a reptile, fearful to explore
 The page of human knowledge? Why mistrust
 The sensate soul, the faculty supreme
 Which instinct wakens? REASON, pow'r sublime!
 Accept the strain spontaneous, from the MUSE
 Which nurs'd on Albion's cliffs, delights to sing
 Of LIBERTY, and thee, her ALBION's boast.
 And tho' no flight sublime shall grace her toil,
 No classic lore expand her thinking mind,
 Prophetic inspiration, rapt, shall pour
 This mystic oracle. The pendent globe
 Shall greet, with pœans loud, the sacred claim
 To Britain's sons, by REASON ratified;
 And when the God of Nature, "trumpet-tongued,"
 Shall check the fiery steeds that hurl the car
 Of shouting Vict'ry, Time shall trace her course
 On the proud tablet of eternal Fame;
 And Nature, tow'ring 'mid the wrecks of war,
 Shall bless her ALBION's shores, which grandly lift
 Their rocky bulwarks o'er the howling main,
 Firm and invincible, as ALBION's sons,
 The sons of REASON! UNAPPALL'D and FREE!"

The other pieces by Mrs. R. are—an Answer to a copy of verses by P. Pindar, Esq.; Stanzas, with an Answer, by James Bowden, Esq.; Lines, with an Answer, by the Same; Stanzas, after melancholy Dreams, to the Poet Coleridge; Extempore, sent with a Pair of Gloves to S. J. Pratt, Esq.; the Old Beggar, the Old Shepherd, and the Haunted Beach. The incident which gave rise to this last poem is narrated in vol. ii. of the *Memoirs*, p. 121—124. In these effusions of Mrs. Robinson's Muse, we generally meet with great ease and elegance of versification, while her sentiments display an amiable and benevolent heart.

If we were to review the title-page of these volumes, we should say that it does not contain a fair specification of their contents. Since the memoirs written by Mrs. R. occupy so small a space, the words of the title ought to have been inverted, thus: *Some posthumous pieces of the late Mrs. Robinson; to which are prefixed Memoirs, partly written by herself.*

ART.

ART. III. *Fragments of the Natural History of Pennsylvania.* By Benjamin Smith Barton, M. D. &c. &c. Part First. Folio. pp. 30. 4s. Printed at Philadelphia. Sold in London by Robinsons.

THE lovers of natural history will be gratified by the information contained in this number of a work that promises to extend our knowledge, in some important respects. The observations on the connection between the emigration of birds, and the progress of the seasons, are peculiarly interesting; and they are more striking, because they are laid before us in the form of tables. Dr. Barton says, in the introduction:

‘ From an inspection of these tables, it will appear, that the *Alauda alpestris*, or Shore-Lark, the *Alauda rubra*, or Red-Lark, the *Fringilla tristis*, or Golden Finch, and some others, were not observed, in the vicinity of Philadelphia, earlier than the twelfth of March, 1791: whereas the same birds were seen, in the same neighbourhood, as early as the twenty-eighth of February, the following year, on their passage northward.

‘ I have placed the *Anas canadensis* (Wild Goose) between the 15th and the 18th of April, 1791; but in the year 1794, these birds were observed, on their migration from the south, as early as the 3d of March. In the first mentioned year, the *Ardea Herodias*, or Great Heron, was not observed before the 15th or 16th of April; but in the latter year, numbers of these birds were seen as early as the 1st of April. Many other instances might be mentioned.

‘ How much the movements of birds from one country to another depend upon the state of the seasons, will appear from different parts of this little work; particularly from the third section. Here we find, that during our mild winters, several of those species of birds which, in general, are undoubtedly migratory, continue the winter through in the neighbourhood of Philadelphia. Such, which I have denominated the OCCASIONAL, or ACCIDENTAL, RESIDENT BIRDS, are the *Ardea Herodias*, or Great Heron, *Columba carolinensis*, or Turtle-Dove, the *Fringilla melodia*, and several others: I doubt not many more than I have mentioned. The *Columba migratoria*, Passenger-Pigeon, commonly returns from the northward late in the fall, and continues with us a few days, or weeks, feeding in our fields upon the seed of the buckwheat, or in the woods upon acorns. But if the season be a very mild one, they continue with us for a much longer time. This was the case in the winter of 1792—1793, when immense flocks of these birds continued about the city, and did not migrate farther southward, untill the weather became more severe in the month of January. The winter of 1792—1793, was one of the mildest that had ever been remembered in Pennsylvania. It is a common observation in some parts of this state, that when the Pigeons continue with us all the winter, we shall have a sickly summer and autumn. There is, perhaps, some foundation for this notion.—Large bodies of these birds seldom do winter among us unless the winter be very mild; and the experience of some years has taught us, that such winters are often followed by malignant

malignant epidemics. The mild winter of 1792—1793, was succeeded by a dreadful malignant fever, which destroyed between four and five thousand people in Philadelphia; and I am assured, that the same fever in 1762 was preceded by an extremely open winter, during which the pigeons remained about Philadelphia, and in other parts of the state. In the hands of a poet, a Lucretius; or a Virgil, this coincidence between the accidental hibernation of the pigeons and the appearance of the yellow-fever might be wrought up into a system of beautiful extravagance.

Dr. B.'s remarks on this curious subject will be found new and interesting, and to us they appear decisive. He observes, on the migration of quadrupeds :

‘ We see that quadrupeds and some other animals do occasionally, during severe winters, migrate to more southern climates. I am assured, that the bears migrate, in great numbers, every autumn, across the Mississippi, going south (perhaps to the mountains of New Mexico), in search of a milder climate. In the spring, they return again by the same route. This migration of the bears is particularly observed at Manchac, on the Mississippi, about the latitude of —. Many other quadrupeds perform similar migrations, both in the old and in the new world.’

Those birds which have been found in a torpid state, Dr. Barton supposes to be stragglers, left behind by their fellows.

The emigration of several American birds to Europe, and their return to the new world, are curious facts, which have never before been placed in a clear light :

‘ My learned and candid friend Mr. Pennant (whose name I never mention but with pleasure and with gratitude; whose works have contributed much to my information, and whose example has stimulated me to the study of natural history) thinks there is the “greatest probability” that numbers of the birds of Kamtschatka are common to North America, “and that they pass there the seasons of migration.” I may observe, on the other hand, that it is likely that many of the North American species pass into Asia and Europe, making between these continents and the new world regular migrations. I think (for I write from memory) that it is Professor Biseke who has lately shown, that several of the North American birds annually visit the neighbourhood of Mittau, in Courland. Among others, I particularly recollect that this writer mentions the *Loxia Cardinalis*, or Cardinal Grosbeak. In the farther investigation of the subject of the migration of birds, we shall discover, that many species (many more than is generally imagined) are common to the old and to the new world; and that several species are occasionally passing into countries which before they had not visited. I am not afraid, that genuine naturalists will suppose, that the regularity of migration, which I have mentioned, between the two continents, is altogether imaginary. I certainly do not carry my birds as far, in search of food, of resting places; and of better climes, as did Cotton Mather, of New England, who fancied that the wild pigeons,

pigeons, on leaving us, " repaired to some undiscovered satellite, accompanying the earth at a near distance."

Dr. Barton's tables are divided into columns, containing the progress of vegetation, the state of the thermometer, &c. with the birds of passage at different seasons. The resident birds, and the occasional visitants, are afterward enumerated.

This number closes with some curious remarks on the *usefulness* of particular species. Among other passages, the author says:

' As a devourer of pernicious insects, one of the most useful birds with which I am acquainted, is the House-Wren, or *Certhia familiaris*. This little bird seems peculiarly fond of the society of man, and it must be confessed, that it is often protected by his interested care. From observing the usefulness of this bird in destroying insects, it has long been a custom, in many parts of our country, to fix a small box at the end of a long pole in gardens, about houses, &c. as a place for it to build in. In these boxes they build and hatch their young. When the young are hatched, the parent birds feed them with a variety of different insects, particularly such as are injurious in gardens. One of my friends was at the trouble to observe the number of times that a pair of these birds came from their box, and returned with insects for their young. He found that they did this from forty to sixty times in an hour; and in one particular hour the birds carried food to their young seventy-one times. In this business they were engaged the greater part of the day; say twelve hours. Taking the medium, therefore, of fifty times an hour, it appeared that a single pair of these birds took from the cabbage, sallad, beans, peas, and other vegetables in the garden, at least six hundred insects in the course of one day. This calculation proceeds on the supposition, that the two birds took each only a single insect each time. But it is highly probable they often took several at a time.

The species of *Certhia* of which I am speaking generally hatches twice during the course of the summer. They are very numerous about Philadelphia, and in other parts of the United States.

‘The fact just related is well calculated to shew the importance of attending to the preservation of some of our native birds. The esculent vegetables of a whole garden may, perhaps, be preserved from the depredations of different species of insects by ten or fifteen pair of these small birds; and independently of this essential service, they are an extremely agreeable companion to man: for their note is pleasing. A gentleman, in the neighbourhood of Philadelphia, thinks he has already reaped much advantage from the services of these wrens. About his fruit-trees he has placed a number of boxes for their nests. In these boxes they very readily breed, and feed themselves and their young with the insects, which are so destructive to the various kinds of fruit-trees and other vegetables.’

These and similar facts lead the author to speak of a subject of great importance in political economy; viz. the increase of
REV. DEC. 1801. A a destructive

destructive insects in the United States. The insect denominated the Hessian Fly is considered by Dr. B. as a native of America: but, he observes, it could not have originally inhabited wheat, rye, and other gramina, because those vegetables are not indigenous in America. The Pea-fly is another of these spoilers; and,

‘The Caterpillar, which has begun its ravages upon the leaves of the Lombardy Poplar, that contributes so much to beautify our city, is most probably a native of our woods. It prefers this fine foreigner to the less palatable leaves upon which it has been formerly accustomed to feed. Other instances of this kind might be mentioned. They shew how very necessary it is to watch the migrations of insects from the native to the introduced vegetables; and they teach us a truth; not I think sufficiently attended to by naturalists, that different kinds of insects are much less confined to vegetables of the same species, or to species of the same genus, than has been commonly imagined. It is certain, that the same species of insects, in America, often feeds indiscriminately, and in succession, upon plants of very opposite genera, and even of very different natural orders.’

From the important matter contained in this specimen, and the agreeable manner in which Dr. Barton writes, we are led to form considerable expectations of the remainder of the work; and we trust that it will meet with sufficient encouragement to engage the ingenious author in its prosecution.

ART. IV. *The Institutions of the Practice of Medicine*; delivered in a Course of Lectures, by Jo. Baptist Burserius, de Kanifeld. Translated from the Latin, by William Cullen Brown. In Five Volumes. Vol. I. 8vo. pp. 549. 8s. Boards. Edinburgh, Mudie; London, Robinsons. 1800.

THIS extensive work, of which we have only the commencement before us, is intended to afford a comprehensive view of the principal facts and doctrines relating to medical science. It partakes, necessarily, of the defects of a series of lectures, in proving too copious for readers who look for applicable knowledge in books; and in containing many discussions which are useful only to students, just entering on the elements of the art. Even to this class of readers, in England, the examination of some opinions canvassed by Dr. Burserius will appear superfluous; such as the theoretical notions of Boerhaave, Etmuller, &c. which the advanced state of medical science here has consigned to neglect, and nearly to oblivion. The fate of Boerhaave, as a writer, may indeed serve as a beacon to all who delight in theorizing. Many living practitioners can remember the period when his authority, in matters of opinion,

was

was unquestioned: when his Aphorisms formed the basis of inquiry; and when he was venerated almost superstitiously by the whole profession. What remains now of his mighty reputation? His Pathology is disregarded; his Therapeutics are discredited; and even his well-earned fame in Chemistry is obscured by the amazing revolution in that branch of science. The memory of his virtues alone continues unfaded: as a Christian and a moralist, he yet maintains the rank of *Princeps Senatus*; and the example of the man may still be held out to those who would reap little advantage from the labours of the Professor.—It is useful, however, occasionally to take a station from which we can descry our actual progress in knowledge; and works like the present are not without their recommendations, when they present to our view the state of general opinion among the members of the profession, in other countries.

This first volume opens with a 'short commentary on Inflammation.' After having criticized the principal doctrines which have prevailed on this subject, the author advances his own theory; viz. that inflammation is excited by a stimulus, and that its phenomena may be explained on this supposition. Among the stimulants capable of producing inflammation, he admits *acrimony of the blood*; and he enters into a discussion of some length respecting the appearance of the buffy coat, or blood drawn under certain circumstances, which he refers to an increased quantity of coagulable lymph, and a stronger attraction between the red globules for each other. Perhaps, he has scarcely made sufficient allowance for the changes produced by the greater or less velocity with which the blood flows from the vein.

The Lecturer next makes some judicious remarks on those states of inflammation, which, in this country, are distinguished by the titles of *active* and *passive*. The former he supposes to depend on arterial, the latter on venous inflammation.

The Prognostics and Cure of Inflammation contain nothing peculiar. The language of the antient Pathology is very discernible in this part of the work; and the author treats of the cure by *derivation* and by *revulsion*, though modern practitioners pay no regard to those contested distinctions.

In discussing *Fever in general*, Dr. Burserius examines, at considerable length, the opinions of preceding writers, respecting the definition and the proximate cause of fever; and he rejects them all:—substituting for a definition, a particular description of the symptoms of fever; and supposing that the cause depends on a change in the qualities of the circulating fluids, combined with a spasmodic state of the muscular fibres in the containing vessels.—The end of febrile agitation is, in

his opinion, the expulsion of morbid matter from the system: but this notion was exploded by Dr. Cullen, and is become entirely obsolete among medical men in this country.

Speaking of the remedies of general fever, the author condemns the mode of exhibiting tartar emetic, which is commonly practised by English physicians:

• At two meetings of the Royal Medical Society, the one held January 15, the other February 4, 1782, the celebrated Majault, Morisot, Deslandes, Desessartz, and Tenneurius, brought forward many instances of the bad effects of tartar emetic exhibited in this way. And, in short, all of them learnt by long experience, that this remedy promotes corruption of the fluids, as appeared from the very fetid smell of the feces, which is sensibly perceived on the days when that remedy is employed, and that concoction and the true crisis are impeded by it. Desessartz moreover has added that, after he had desisted from the use of this remedy, for fourteen years, he had observed with great pleasure diseases commonly putrid, and likewise malignant ones, terminated more quickly and regularly; and Tenneurius has made the same assertion. In a conversation with my friend and former pupil, Jo. Bapt. Cambieri, a physician of the highest expectations, I was lately informed that he had perceived the fetid smell mentioned by the Parisian Academicians, not only in the feces, but likewise in the urine and sweats, when he employed the same remedy; but that he had observed it to be diminished; nay altogether removed, on the days when it was omitted. Vid. Journ. de Med. tom. lvii. p. 274.

We apprehend, however, that no such effects have occurred to English observers. We have used this remedy in many cases of fever with advantage; and we never found any inconvenience attending it, excepting the irritability which is sometimes excited in the stomach, if the employment of the antimonial be continued too long.

Like Dr. Cullen, the present Lecturer divides fevers into *continent*, *continued*, *remitting*, and *intermitting*.—A good view is given of the varieties and symptoms of intermittents. In treating of the causes, the principal theories on the subject are examined; and some pains are bestowed on the humoral pathology, which the author combats. His remarks are judicious, but they would not be new to our readers.—Respecting the method of cure, we meet with nothing particularly interesting. The author has omitted to notice the use of arsenic in intermittents, which has been sanctioned by the experience of many of our practitioners. The varieties of intermittents are distinctly treated, at some length: but the distinctions, we apprehend, are in many instances more curious than useful.

Under the head of *continent Fevers*, Dr. B. has, in like manner, considered several varieties which are not objects of practice in the present age, and which it might have been sufficient to

have simply indicated to his students. The humoral pathology is here again conspicuous.—Excepting these instances, we have nothing to remark on the history and cure of the Synochus and Typhus, which are accurately collected from the best writers ;—and we may apply the same observation to the history of hectic Fever, with which the volume is concluded.

This compilation may be regarded, on the whole, as valuable, but as especially calculated for students on the continent ; where it might hold a middle place between the supporters of the antient humoral doctrines, and the admirers of the Brunonian system, who depart equally from the path of useful observation. The translator might adapt it better to English readers, by retrenching the exuberance of the theoretical discussions ; and in some places, the opinions expressed by the author on points of practice might be properly corrected by notes. The bulk of the work, which is a considerable objection to its circulation, would then be judiciously lessened ; and important additions to the text might occasionally be made, by referring to the experience of medical men in our own country.

ART. V. *A Journey from London to the Isle of Wight.* By Thomas Pennant, Esq. 2 Vols. 4to. 3l. 3s. Boards. Harding. 1801.

THE labours of this ingenious naturalist and tourist have often gratified our curiosity, and afforded us an agreeable relaxation from more serious occupations. He is now deceased ; and we receive this publication as we would accept the legacy of an old companion, the recollection of whose gaiety and kindness is mingled with regret. The inhabitants of this country are indebted to Mr. Pennant for much of that proper spirit of *home-travelling*, which is now prevalent among us. His manner of writing was well calculated to produce such an effect ; for he was not one of those “ who can travel from Dan to Beer-sheba, and cry it is all barren :” he had the art of forming discussions of an interesting kind, in the most beaten paths.

The present work contains a description of a road so often travelled, and of places so generally known, that its sources of amusement might be supposed to be exhausted ; yet we are here presented with much entertaining matter. The title-page, indeed, does not convey a sufficient idea of the direction and extent of the journey recorded in these volumes. Mr. Pennant's route lay down a part of the Thames, then to Rochester, Feversham, Reculver, Margate, Deal, Dover, and along the Southern Coast to the Isle of Wight. His manuscript, as we learn from an Advertisement prefixed to the second volume, was designed to comprehend a tour from London to the *Land's*

End, but it is complete no farther than as it now appears. The editor, however, intends to publish a third volume, in order to finish Mr. P.'s original plan; and 'he is authorized to inform the public that the undertaking will be assisted by all the information which can be derived from a gentleman who accompanied Mr. Pennant during the tour, who assisted in his researches, and was acquainted with his opinions and intentions.'

The tour itself, which forms a part of Mr. P.'s great manuscript work intitled *Outlines of the Globe*, originated in the following laudable motives, as related by the venerable author:

"My son had returned from his last tour to the Continent, so much to my satisfaction, that I was determined to give him every advantage that might qualify him for a second, which he was on the point of taking over the kingdoms of France and Spain. . I wished him to make a comparison of the naval strength and commercial advantages and disadvantages of our islands with those of her two powerful rivals: I attended him down the Thames, visited all our docks, and, by land, (from Dartford) followed the whole coast to the very Land's End."

It is much to be wished that our youthful travellers, in general, should be made equally well acquainted with their own country, before they visit others."

From the first volume, we shall quote the account of the Gun-powder Magazines at Purfleet. It contains, however, some reflections on the great Dr. Franklin, which do no credit either to the information or the liberality of the writer; and an attack on his philosophy which the very note subjoined proves to be unfounded:

"We landed at the tremendous national magazines of gun-powder, erected here about the year 1762. Before that time, they were at Greenwich, which was thought to be too near our capital. They consist of five large parallel buildings, each above a hundred and sixty feet long, and fifty-two wide, five feet thick, arched beneath the slated roof; the arch is three feet in thickness, and the ridge of the roof covered with a coping of lead twenty-two inches broad. The building was reserved for the reception of the barrels of powder brought out of the magazines, in order to be tried in the proof room, to which there is a passage with a railed floor, covered on the bottom with water; so that, should any grain drop, no accident could set them on fire. At present this building is disused, all the experiments being made in the open air, and in the musquetry, or artillery, to the use of which it is destined. All these buildings are surrounded, at a distance, with a lofty wall. In the two outmost is kept the powder; in small barrels, piled within wooden frames, from the bottom to the roof; and between the frames is a platform of planks, that the walkers may go in without fear of striking against any substance capable of emitting a spark. As a farther security, those who enter this dreadful place are furnished with goloshoes and a carter's frock. Nothing of iron is admitted, for fear of a fatal collision. The doors
are

are of copper, the wheels of the barrows are of brass. The four buildings usually contain thirty thousand barrels of a hundred pounds weight: should an explosion take place, London, only fifteen miles distant, in a direct line, would probably suffer in a high degree. The dread of such an accident by lightning, struck the Board of Ordnance so forcibly, that, in 1772, it consulted the Royal Society on the most effectual method of preventing it. A Committee from the Society was appointed, who determined on fixing conductors: such were set up with unusual precaution. These were on the principle advised by Dr. Benjamin Franklin: the very same philosopher, who, living under the protection of our mild government, was secretly playing the incendiary, and too successfully inflaming the minds of our fellow subjects in America, till the great explosion happened, which for ever disunited us from our once happy colonists. On May 15th, 1777, the inefficacy of his pointed conductors was evinced. Lightning struck off several pieces of stone and brick from the coping of the Board House, which stands at a small distance from the Magazines; neither the conductor on this house, or any of the others, acted; but Providence directed the stroke to that alone: the mischief was very trifling. Mr. B. Wilson had very ably dissented against the method proposed by Dr. Franklin; but the evil genius of the wily philosopher stood victorious; and our capital narrowly escaped subversion*. At present, these important Magazines are made as safe as human wisdom can contrive. The house in question is a handsome plain building, and is called the *Board House*, from the use made occasionally of it by the Board of Ordnance. It commands a fine view up and down the River, and the rich gentle range of hills in the county of Kent.'

We insert the description of Richborough Castle, as one of the best accounts which we have seen of that curious monument of antiquity:

'Richborough Castle stands in the parish of Ash, on the east side of the village, on the edge of a lofty slope, once washed by the sea: at present the Stour passes beneath its base.

'The form is rectangular. Most of the walls remain; are very thick, strong, and lofty; and the cement now so hard as to baffle the efforts of those who have lately endeavoured to destroy them. The materials are great pebbles, flint, chalk, &c. bedded in the mortar, which consists of lime, sea shells, broken tile, and small pebbles. The pieces of chalk were taken by the Romans from the foot of the adjacent cliffs, and have the pholades remaining entire in their cylindrical cells. The whole was faced with square stones, perhaps Purbeck, and, as usual, had tiers of tiles at certain distances, two tiles thick: the square scaffold holes remain.

'The foundation of the wall is pit-sand, flint, chalk, twice repeated, flints lodged in mortar, and lastly, a stratum of mortar. The thick-

* 'A reason was assigned for this disaster; for, on inspection, it was found to be owing to a want of construction in the metallic conductor. See Phil. Trans. vol. lxxviii. p. 232.'

ness at the base is eleven feet three inches, but at the height of a few feet, ten feet eight inches. The length of the south wall, on the outside, is 358 feet; of the west wall, 490 feet; of the north wall, 560 feet. The north wall, in its most perfect part, is about 25 feet high: it ran down the slope, towards the sea, and reverted for the space of about 190 feet along a natural terrace, and ceased where the terrace ceased, and the bank became inaccessible. Vast fragments of the wall are fallen down the slope. The west entrance is laid with large squared stones, *stratum super stratum*. Near this place, in the north-west corner of the Castle are found snags of stag horns sawed off; boars tusks; oyster shells in abundance; and the exuvium of other animals: the whole area is considerably above the external ground, and consists of rubbish interspersed with thin layers of mortar. In the north wall, on the outside, is the foundation of a square tower, and there are marks of four more in different parts of the walls. Their situation is pointed out by a particular arrangement of round holes lined smoothly with mortar penetrating many feet into the substance of the wall, but no where pervading it.

‘The *porta ducumana* is beneath a tower in the north wall, through which the entrance into the Castle is in an oblique direction.

‘In the area of the Castle has been lately discovered a platform of solid masonry, in form of a parallelogram, the sides of which are 144 feet by 104; the depth five feet. It is a composition of large flint stones and coarse mortar. On its surface are remains of a superstructure in the shape of a cross, (which has been faced with the squared stones,) rising somewhat above the ground, and more than five feet above the platform.

‘A wharf, or landing place, was discovered some years ago in the plain at the foot of the slope about forty rods northward of the Castle, about four feet high, of a triangular form, one of the sides parallel with the bank, and its opposite angle projecting towards the sea; the sides were nearly equal, of about ten feet each. It was a shell of brick work, two bricks thick, filled with earth, the two projecting sides tied together with a brace of the same material. Two sorts of brick were used in this building; one was 18 inches by 12, and three inches and a half thick; the other 17 by 11, and one and a quarter thick. Mr. Ebenezer Mussel, of Bethnel Green, near London, purchased the whole quantity of materials, and employed them in paving a court yard, and part of his house.

‘The Amphitheatre lay on the north side: its form is destroyed, but the vast hollow marks the place.

‘Multitudes of antiquities have been discovered in and about the castle; such as urns, coins, fragments of earthen ware, marble mouldings, and brazen figures of Mercury, and of a Bagpiper. The last represents a soldier armed in his helmet playing on the bagpipe, with the pipe in his mouth, and the bag, which is very large, placed almost before him, and pressed with both arms. I have in my voyage to the Hebrides, p. 347, given a full history of the use of this instrument at different periods.

‘Richborough has a most advantageous prospect, which might be one reason for fixing on this situation. It commands all the way from

from the North to the South Foreland, and all the harbour in which it stood, so that no fleet or vessel could escape its observation.'

The origin of the Godwin-Sands is thus explained in a very ingenious and probable manner:

'Perhaps a natural solution may be as credible as the fabled stories: we may ascribe it to the vast inundation which A. D. 1100 overflowed part of Holland, so that the water being carried from this part of the sea rendered it so shallow that places which might have been safely passed over before now became full of dangerous shoals. Such was the case here: the Godwin sands were two sub-marine hills, in ancient times unnoticed by reason of the depth. After this drainage their heads at the ebb tides appeared above water, and became most dangerous to mariners: yet they have their utility—ships anchor or moor beneath their shelter, and the little they receive from the North and South Forelands, and find protection from the winds, unless in very extraordinary tempests; such was the fatal one of November 1703. It began five hundred leagues from the English coast, and hurried the homeward-bound ships, which happened to be in the Atlantic, with amazing impetuosity up the channel, and as it were swept the ocean and filled every port: no ship that did not go direct before the wind could live. It passed over England, France, Germany, Sweden, Finland, Russia, and part of Tartary, and spent itself amidst the islands of ice in the Frozen Sea. I refer to a most ample relation of its dire effects by sea and land, given in the *City Remembrancer*, vol. ii. from p. 43 to 187: its height was in the night of November the 26th, but it lasted with incredible fury fourteen days. That dreadful night was uncommonly dark, and made more hideous in many places by the quick coruscations of lightning and the singular glare of meteors and imaginary symptoms of earthquakes, while the rolling of the thunder and the howling of the winds formed the terrific diapason.'

Hastings, in Sussex, is now become a place of fashionable resort, for sea-bathing: but it has till lately been of little note, and has therefore not received much attention from writers. Mr. Pennant gives this account of it:

'We descended a long and steep hill to Hastings, a town crowded in a narrow gap between high hills, open to the sea; a wild port, without even the shelter of a pier. The Conqueror made this place his first day's march, after landing at Pevensey; staid here fifteen days to refresh his troops, collect provisions, and gain a knowledge of the country; he drew his ships on shore, to take from his army all hopes of retreat, and left them under the protection of forts. He added Hastings to the number of the cinque ports, and it enjoyed all the privileges: the number of ships which it sent out for the use of the State was only five; but with its dependent ports, twenty-one.

'This, I imagine, was, after the Conquest, a common passage to Normandy; for one Matthew de Hastings held the manor of Grenoele, in this county, of the King, by the service of finding an
oar

oar whenever the King passed over the sea at the haven of Hastings.

The Editor of the Saxon Chronicle imagines that a Danish pirate, Hastingus, who used to land here on his plundering expeditions, gave name to the place; and being accustomed to build small castles wherever he went for these purposes, it is highly probable that the present was built on the site of one of his rude fortresses. It stands on a steep cliff above the sea: no part is entire; all that remains are disjointed walls, and vast fragments scattered over various parts of the base: it is divided from the main land by a vast foss a hundred feet broad, and there are two others on the eastern side. Over the beach hangs a projection separated from the castle by another foss. This seems to be the site of one of the Danish forts of the pirate Hastingus.

Hastings was certainly a flourishing town long before the Norman invasion: it appears that King Athelstan, who reigned between the years 925 and 942, had here a royal mint.

After the Conquest, William bestowed Hastings, and the whole rape or hundred which bears that name, on Robert Earl of Eu, descended from a natural son of Richard I. duke of Normandy. This town gave name to the great Family of the Hastings, afterwards Earls of Huntingdon. The first was Robert, portgreve of the town, and steward to the Conqueror. They flourished from that time till the death of the last in 1789.

The churches are St. Clement's and All Saints; the first with a tower of neat tessellated work. The priory of Austin Canons stood behind the castle; not a vestige of the building is to be seen: it was founded, as is said, by Sir Walter Bricet, in, or perhaps before, the time of Richard I. The original building was washed away by the sea, and afterwards replaced on its late site.

In this town is a small manufacture of thin silks; but its chief support is its fishery of herrings, mackarel, and soles. The first begins in November, and lasts till Christmas: about forty boats are employed, and about two hundred men, who go out four or five leagues to sea during the season. The mackarel and soles are sent to London in fish-carts.

Near the castle are some lime-kilns of a most magnificent size and structure. The lime is no small article of commerce, and made of the chalk brought from Beachy-head, in boats of from thirty to forty tons burden.

The cliffs along this coast, from the west side of Winchelsea to Hastings, consist of shingle, with a high beach at their base; that on which the castle stands, of a sand stone mixed with shingle, split into fissures and vast gaps. The view towards Beachy-head is of a great curvature, with a high beach; the land near the shore flat, but rising, four or five miles inland, into lofty downs.

In the notice of Portsmouth, we were much pleased with the following passages:

We sailed amidst the glorious defenders of our country. Were I a King of England, I would never receive an Ambassador with any solemnity

solemnity but in the cabin of a first-rate man of war : there is the true seat of his empire !

‘ This harbour may boast of being capable of receiving the whole Navy of England. Secure from every storm, the greatest first-rates may ride there at the lowest ebbs without touching ground : they can take in their stores and guns while they are at anchor, and get out of harbour in a quarter of an hour’s time, without impediments of bars or sand-banks, in the deep water beneath South-sea Castle. The approach to the harbour is said to be impregnable, by reason of the various forts or batteries close to the water edge. On the Gosport side are Charles-fort, James-fort, Borough-fort, Block-house-fort, and another lately erected in Stokes-bay. Monkton-fort, on the point next to Stokes-bay, I think had once the name of Kicker-gill, or Gill-kicker, (I do not know which ;) redoubts which lay, one on one side, the other on the opposite part of the entrance.

‘ I dropped a sigh beneath the stern of the Victory, dragged sullenly from offered glory *, and blushing afterwards at the satire of undeserved thanks.

‘ The Formidable, taken from the foe, bravely contesting with numbers the trophy of the gallant Hawke ; since the scape-goat of a factious Admiral, Time and Truth vindicating the fame of her veteran Commander. Hercules and Hydra typically adorn her prow, allusive to his cruel injuries :

‘ *Diram qui contudit hydram*

Comparit invidiam supremo fine domari !

‘ I pass by numbers of other ships, through ignorance of their story. Now appear before me the unfortunate Ardent, added to our Navy by the bravery of one Commander, and lost, for a time, by the imprudence of another ; the Guipuscoa, a Spanish sixty-four, one of the first fruits of Sir George Rodney, on January 8, 1780, in the last period of his fortunate life ; the Princessa another (the name now changed,) a lee-shore prize, taken in a tempest with several others, within eight days distance—so rapidly did victory press on this her favoured child ; the St. Michael, another of Fortune’s gifts, blown by a furious storm from the midst of the besieging fleet, to the invincible garrison of Gibraltar ; finally, the French Monarque, and the French Prothee, in defiance of all the mutability of that marine Deity, became the captive of the vigilant Digby. Numbers of others I could enumerate, eulogies of living commanders, or cœnotaphs of departed heroes.’

This proud list would now require much greater space and labour for its completion.

The reader of this work will find that, besides the miscellaneous entertainment which it affords as a book of travels, it is occasionally diversified by inquiries and details which will gratify the Antiquary and the Naturalist. Of its researches into antiquity, indeed, our extracts have already afforded some specimens.

* Lord Littleton’s Letters.*

The volumes are ornamented with above forty elegant engravings. The first contains, among other plates, views of the Temple Stairs, Trinity Hospital, Deptford, Norfolk Hospital, Greenwich, Perry's Dock, Charlton Manor House, Lesney's Abbey, Tilbury Fort, Rochester Castle and Bridge, Feversham Abbey, Reculver, Dent de Lion, North Foreland Lighthouse, St. Augustine's Monastery, at Canterbury, Deal, Walmer, and Dover Castles, the ancient Chapel and Tower in the latter, Maison Dieu, and Shakspear's Cliff. The second volume presents views of Sandgate Castle and Town, Winchelsea Church, Hastings Castle, Battle Abbey, Pevensey Castle, Newhaven, the Pavilion at Brighton, New Shoreham, Arundel Castle, Chichester, Emsworth, Warblington, Cowes and Carisbrook Castles, St. Catherine's Tower, St. Catherine's Point, and Yarmouth in the Isle of Wight.

An account of a Northern Journey, from Downing to Alston Moor, performed by Mr. Pennant, has been intrusted by his son to the editor of the present work, and has lately made its appearance in print: but we have not yet seen it.

ART. VI. *Observations on the Medical and Domestic Management of the Consumptive; on the Powers of Digitalis Purpurea; and on the Cure of Schrophula.* By Thomas Beddoes, M.D. 8vo. 7s. Boards. Longman and Rees. 1801.

IN pursuance of his philanthropic attempts to abridge the catalogue of incurable diseases, Dr. Beddoes now offers to the public some additional remarks on the treatment of pulmonary consumption. It would afford us the most cordial satisfaction, if we could add that he had demonstrated the success of the methods of cure suggested by him: but, unfortunately, this cannot be affirmed. The first plan proposed in the present volume is the residence of the phthisical patient in a cow-house: a project which, we believe, was first announced to the public by Madame de Genlis, in the "*Tales of the Castle*;" and which was afterward adopted, and subsequently rejected, by the practitioners of Vienna. Of a mode of treatment which so completely changes the habits of the patients, and which is in many respects so disgusting to their feelings, it would be presumptuous to speak decisively, without personal experience. We shall only remark, therefore, that the cases produced by Dr. Beddoes prove nothing more than an alleviation of consumptive symptoms, by confinement with cows. To some of the reports, however, we must object that, though very well related, they do not challenge complete reliance,

liance, because they contain only the evidence of the *patients themselves*. Every considerate professional man knows with how much qualification this species of evidence is to be received: in some cases it may be the best: but, in general, it is extremely fallacious, and very different from the account which an intelligent physician would give of the same series of events. How often, in effect, do we observe that the most distressing sensations are produced by diseases which are accompanied with little danger: and how frequently does the patient feel but trifling inconvenience, in states which are marked to the experienced practitioner as big with alarm! This method of detailing the patient's supposed feelings, intermingled with hopes and fears resting on no solid ground of knowledge, and the assumption of it as the basis of rational practice, appears so likely to mislead, that it cannot be too quickly and earnestly discouraged. We have seen the reputation of empirics gain a temporary ascendancy on this plan, but we cannot deem it admissible in scientific works.—From this censure, however, we shall have occasion, under the next head of Dr. Beddoes's work, to except the case of a physician, related by himself.

We have now to attend to the second method of cure in consumptive cases, proposed by this active author; the use of *Digitalis purpurea*. Of this remedy, Dr. Beddoes expresses a highly favourable opinion; and though he had before retracted the too extensive panegyric on it, which his first observations on its use in consumption conveyed, he still speaks of it in terms which will appear abundantly strong to most practitioners. He tells us, (p. 118) that 'in general, where he had all possible evidence of the existence of tubercles, the exhibition of *Digitalis* has been perfectly successful. If he specify that it has succeeded in three such cases out of five, he believes he should much under-rate the proportion of favourable events.' We shall be glad to learn that this high degree of success continues to be supported by experience.

The case of Dr. Briggs, in this part of the work, exhibits the effects of *Digitalis* on the vascular system, in a striking manner. There does not, however, appear to be any decisive evidence of the existence of tubercles in this instance. We should consider it as a case of febrile hæmorrhage, precisely adapted to the action of *Digitalis*; and which, without the use of that medicine, might probably have terminated in phthisis.

Here we meet with some valuable observations on the auxiliary remedies which may be conjoined with *Digitalis*.

'When fox-glove is deficient in operation, I have found the conjunction of opium in large doses, of bitters and squills, powerful auxiliaries. I have often joined with it hyoscyamus and cicuta.

Mr.

‘ Mr. Allen, whom I have already mentioned, having laboured for some time under cough, pain of the breast, expectoration, and hectic fever, took tincture of digitalis thrice a day, in doses, gradually increased, till he reached twenty-five drops thrice a day. It had no manner of effect on his pulse, and did not sensibly alleviate any one of his symptoms, the sediment only in the urine totally disappearing in three days, under its use.

‘ Mr. Allen then took, at my request, a tea-spoonful of the following tincture : tincture of columbo, three drachms : compound t. of cinnamon, two drachms ; of opium, one drachm and a half ; adding to each dose three drops of tincture of squills for one of digitalis, till he came to half the dose of digitalis formerly taken alone. In a week, the dose of tincture of digitalis being thirteen drops, and of squill thirty-nine drops, the pulse was reduced to 50.’

• The conjunction of calomel with *Digitalis* has also been found useful in incipient consumptions. Respecting the mode of action of this remedy, Dr. Beddoes has not expressed himself very clearly, and we are uncertain whether we can venture to give a representation of it. From some passages, however, (pp. 197, 198, 199,) we should conclude that he supposes *Digitalis* to act as a stimulant on the vascular system, and as a tonic on the stomach : but we shall quote the passages, to prevent misapprehension :

‘ *Digitalis*, in carefully regulated doses, that is, so administered as not to induce sickness or languor, very regularly increases the momentum of the blood. In this view, therefore, it is the contrary to a *sedative*. Of the fact here stated, I think myself more certain for the following reason.

‘ It had long (as I have publicly stated) appeared to me practicable to acquire measures of irritability and sensibility, particularly of the former. I supposed that an instrument might be so constructed, as when applied to some artery, to shew the force of its stroke.

‘ Having mentioned this idea to Mr. Robert Weldon, that ingenious mechanic fell upon a simple contrivance, which seems capable of being rendered worthy of adoption by medical practitioners, and which, I believe, under a fair prospect of remuneration, he would improve and make public.

‘ Upon the scale of this instrument, I have seen the pulse of different healthy adults vary as widely as from six to sixteen degrees ; and I am much mistaken if I have not felt an artery with a weaker stroke than that corresponding to six of these degrees, increased to above sixteen under the guarded administration of digitalis. The frequency, it is true, was always diminished ; but still the dilatations of the artery, in a given time, would have communicated much more motion.

‘ Having observed how greatly the appetite of many phthisical patients increased under the use of simple digitalis, I have given it in several cases of dyspepsia, and with the best effect. The appetite
having

having increased in these cases, and the symptoms of indigestion having disappeared, I conclude, without imputing to it superior qualities of this kind, that digitalis will increase the power of the stomach. The limitation of the dose is obviously a condition applicable to all substances in possession of the title *stomachic* or *tonic*.

These ideas are certainly very different from those of other practitioners, who have employed the *Digitalis*; and as far as our own experience may be admitted as evidence, the conclusions are entirely contrary to fact, if we rightly understand them.—The following passages will still farther serve to ascertain this matter :

‘ In the production of languor, of excess of sensibility, head-ache, and bilious vomiting, digitalis seems greatly to resemble opium. I have known digitalis occasion an increase of the pulse from 76 to 120, with heat of the skin and head ache. In two instances I believed it to produce feverishness, with a peculiar mottled appearance of the whole skin. In one person a sort of intoxication so repeatedly followed a dose of fourteen drops of the tincture, taken twice a day for two or three days, that I could entertain no doubt as to the cause.

‘ If, therefore, I were to exhibit the materia medica upon a map, I should represent digitalis as not merely touching upon opium, but bordering upon it for some space. In another part it should be contiguous to the vegetable tonics, or bitters.’

Such a map would certainly require the correction of a medical D’Anville in future.

Some experiments on Frogs are related, to shew a similarity between the action of *Digitalis*, and that of opium, externally applied.

We have judged it necessary to express our decided opinion respecting the theory above proposed, because Dr. Beddoes has reprobated, in very strong terms, the exhibition of *Digitalis* in active inflammation of the internal parts :

‘ Whatever may be the justness of these ideas, I hope I have brought together facts enough to induce those to pause who may be tempted to argue from a decreased number of pulsations to a decrease of living action, and from this to the propriety of employing digitalis, in the height of inflammatory orgasm. In pleurisy, if any one should be mad or wicked enough to forego the so certain resource of the lancet in favour of the *sedative* virtue of digitalis alone, he would, I apprehend, increase the disease, if he confined himself to moderate doses. If, with digitalis, he employs copious bleeding, his practice will not admit of reasoning, as the benefit from the operation may mask the mischief from the medicine. Perhaps, from the peculiar susceptibility of the system, this mischief will be more, than may be apprehended from experience of states not inflammatory. It is possible that immense doses, by rendering the period of excitement evanescent,

evanescent, might produce the desired effect. On this principle, opium may be sovereign in pleurisy. But I know not who would feel himself justified in proceeding on such a principle. If any one bold enough can be found, it is fit that he should be clearly given to understand what he is risking.*

The experience of several practitioners, we believe, stands in direct contradiction to these hypothetical fears and prohibitions. We have, indeed, heard of no persons, *mad or wicked enough* to forego the use of the lancet entirely for *Digitalis*; but we have seen and heard enough of its effect in moderating inflammation, after blood-letting had been ineffectually carried as far as was deemed prudent, to be assured that the observations in the passages quoted above are unfounded.

In treating of the cure of Scrophula, Dr. Beddoes informs us that he has experienced much advantage from the exhibition of the muriate of lime*:

‘I have given it to near an hundred patients, in various conditions of life. The dose has been from ten drops for young children, to two drachms for others, three or four times a day. A drachm, diluted with water, (and this is the way I have often ordered it) I consider as a medium dose.

‘There are very few of the common forms of scrophula in which I have not had successful experience of the muriate of lime. A few cases will exemplify its powers, and induce practitioners in medicine, when they want a more powerful remedy for scrophula, to have recourse to this.’—

‘The prudent practitioner will increase the dose with caution, and dilute the medicine. Probably a drachm of the muriate should not be given in less than an ounce of water, or other vehicle.—’

‘It is certainly not by purging that muriate of lime cures *tuberculosis*, or any other scrophulous affection. I have scarce ever been obliged to lessen the dose on this account, but often to give aperients under its use.’

The cases produced in support of this practice are curious and satisfactory.—The volume concludes with some cases and remarks on the power of *Digitalis* in consumptions, by Dr. Kinglake; which in general accord with those of Dr. Beddoes.

The contents of this work are sufficiently interesting to procure the attention of the faculty, though many will not coincide in all points of opinion; and our sincere respect for the author makes us feel great reluctance in ranking ourselves among this number.

* The muriatic acid saturated with lime.

ART. VII. *An Essay on the Malignant Pestilential Fever, introduced into the West Indian Islands from Boullam, on the Coast of Guinea,* as it appeared in 1793, 1794, 1795, and 1796. Interspersed with Observations and Facts, tending to prove that the Epidemic existing at Philadelphia, New York, &c. was the same Fever introduced by Infection, imported from the West India Islands: and illustrated by Evidences founded on the State of those Islands, and the Information of the most eminent Practitioners residing on them. By C. Chisholm, M. D. and Inspector General of the Ordnance Medical Department in the West Indies. 2d Edition, much enlarged. 2 Vols. 8vo. 16s. Boards. Mawman. 1801.

THIS treatise has received so many important additions, in its present form, that we shall deviate from our usual rule of slightly noticing second editions, and bestow on it a rather circumstantial account.

The author still maintains the opinion which he had advanced in the first edition*, that the yellow fever was originally brought to the West Indies from Bulam, in the ship Hankey. As his prior report of the state of this vessel on its arrival at Grenada, and of the communication of the disease to persons who had gone on board from the island, was eagerly controverted in some American publications, Dr. C. has carefully collected farther evidence in support of his original statement; which, as far as we can judge, renders his opinion sufficiently probable. In cases of this nature, where motives of pride or interest induce some of the witnesses to disguise the truth, it is scarcely possible to attain certainty. The progress of the fever seems, however, to be accurately traced, from the first communication between the unfortunate crew of this vessel with the inhabitants on shore, to the diffusion of contagion by the intercourse of the inhabitants with each other: but, for the proofs of these facts, we must refer to the publication itself; since, though they form an interesting part of the history of the disease, they would occupy too much room in our pages.

To the full account which Dr. Chisholm had before given of the symptoms of this fever, he has now added all the information that can be obtained from other publications, in connection with the subject; so that his work really comprizes almost every circumstance known respecting the disease.—The appearances which distinguish this pestilential fever from the plague, and from the yellow remitting fever of the West Indies, are carefully marked.—On the subject of the Philadelphia fever, Dr. Rush's opinions concerning its origin are combated;

* See M. R. vol. xix. N. S. p. 62.

and Dr. C. asserts that it was imported into America by the diseased crew of the vessel which carried the damaged coffee. It is unpleasant to add that, to the *discordant* opinions of some of the medical practitioners attached to the army, the author attributes a great share of the mortality which thinned the ranks of our brave troops in the West Indies.

In treating of the cause of the pestilential fever, Dr. Chisholm has adopted the theory of Dr. Mitchell of New York, which he supposes to contain a complete elucidation of the doctrine of contagion. We think that this part of the work will be read with less satisfaction than the rest; because Dr. Mitchell's system has gained no footing in this country, where the attempts to form a chemical pathology have as yet been attended with little success. Indeed, Mr. Davy's experiments appear to entirely set aside Dr. Mitchell's hypothesis.

On the much-contested subject of the cure of this fever, the author expresses himself decisively an advocate for the free exhibition of mercury. He recommends the moderate use of evacuants, previously to the mercurial course: but he seems to doubt the propriety of the tremendous effusion of blood advised by Dr. Rush. Cold bathing is also mentioned by Dr. Chisholm as a valuable remedy in this fever; and he informs us that it has been successfully employed even while the patient's habit was completely charged with mercury. As this is a new and important fact, we shall lay it in a particular manner before our readers:

“The employment of cold bathing in the malignant pestilential fever, with the intention of giving strength and tone to the system, and facilitating the action on it, of the mercury exhibited, was originally suggested by the total unaptness of bark wine and other tonics to produce this effect, whilst the rapid advance of a gangrenous disposition gave little prospect of a happy termination without a salivation. Every one acquainted with the received doctrine of the “modus operandi” of mercury, and with the prejudices which have existed against the application of cold to the body, in any form, during the exhibition of that medicine, will doubtless acknowledge that no small share of fortitude, and disregard of popular opinions, distinguished the practitioner who first adopted the practice. Dr. Armstrong, of St. Kitt's, has, I believe, the merit of an innovation in medical practice, which must terrify timid practitioners; and which, being so completely opposite to all theoretical notions with respect to the combination of cold and mercurial action, must startle the boldest physicians of the old school.” The manner in which the cold bath is employed with this intention, is as follows: the mercury is exhibited in the manner already described, till a pyrexia is excited. Should any doubt, however, arise of its producing this effect, recourse must be immediately had to the cold bath; which is to be administered repeatedly in the course of the day, by dashing
over

over the naked body of the patient a large pailful of cold water; and, wiping him dry afterwards, as quickly as possible, he is laid in bed, covered with a single sheet, and a glass of spiced wine given to him. Where this practice has been employed with judgment, assiduity, and attention, the effect of it in exciting mercurial action, has been wonderfully great; nor, under such circumstances, has it once failed.'

Dr. Chisholm seems inclined to believe that the beneficial effects of mercury depend on the quantity of oxygen which it imparts to the system.

In the second volume, the author discusses the means of preventing this epidemic; and many of his observations on the local circumstances of our West India Islands appear to deserve particular attention.—In the account of Demerary, we meet with the following curious note:

'I probably hazard the implication of credulity by the following note: In the year 1797, happening to be at Governor Van Battenburgh's plantation, in Berbice, the conversation turned on a singular animal which had been repeatedly seen in Berbice river, and some smaller rivers, such, particularly, as Mahaycony and Abary, on the same coast. So many circumstances, relative to this animal, were detailed by Mr. Van Battenburgh, as removed much of the disinclination to belief I felt. This animal is the famous Mermaid, hitherto considered as a mere creature of the imagination. It is called by the Indians méné, mamma, or mother of the waters. The description given of it by the Governor is as follows: The upper portion resembles the human figure, the head smaller in proportion, sometimes bare, but oftener covered with a copious quantity of black long hair. The shoulders are broad, and the breasts large and well formed. The lower portion resembles the tail portion of a fish, is of immense dimension, the tail forked, and not unlike that of the dolphin, as it is usually represented. The colour of the skin is either black or tawney. The animal is held in veneration and dread by the Indians, who imagine that the killing it would be attended with the most calamitous consequences. It is from this circumstance that none of these animals have been shot, and consequently not examined but at a distance. They have been generally observed in a sitting posture in the water, none of the lower extremity being discovered until they are disturbed; when, by plunging, the tail appears, and agitates the water to a considerable distance round. They have been always seen employed in smoothing their hair, or stroking their faces and breasts with their hands, or something resembling hands. In this posture, and thus employed, they have been frequently taken for Indian women bathing. Mr. Van Battenburgh's account was much corroborated by that of some gentlemen settled in Mahaycony and Abary. Captain Stedman, in his narrative of the Expedition against the Revolted Negroes of Surinam, from 1772 to 1777, (vol. ii. p. 176.) maintains, that the animal called a mermaid, is really and truly a viviparous fish, the female of which is

furnished with breasts; that the appearance of hair is a deception proceeding from a fin running down the back, of a curious construction; that the hands are fleshy fins, &c. But it is to be observed, that he drew his information from "old negroes and Indians," whose remarks, we may suppose, were not very accurate, especially as they were, whilst looking at the animal, under the influence of dread. The reader may compare this with *Lord Monboddo's* curious relations, and believe as much as he chuses of it; as what I have said comes from very respectable authority, I thought it meriting attention.

We cannot conclude our view of this work without observing, that much of the additional matter in the second volume might have been spared. Almost every thing essential, on the subject of the epidemic, had been said in the first volume; and many details are introduced in the succeeding part of the work, which are not immediately connected with the former. Of this nature, are the experiments with nitrous acid, and oxygenated muriate of pot-ash; which, though they strengthen the testimonies already given in favour of those remedies, have no other relation to the proper subject of Dr. Chisholm's book, than the frail and hazardous tenure of the chemical theory of diseases.

ART. VIII. *An Essay on the Inspiration of the Holy Scriptures of the Old and New Testament.* By John Dick, A. M. Minister of the Gospel in Slatford. 12mo. pp. 291. 3s. Boards Ogle, Edinburgh, and London. 1800.

BELIEVERS in Revealed Religion have differed much on the subject of Inspiration; and when we consider the difficulties which it presents on discussion, we cannot wonder at the various opinions which have been entertained concerning it. May it not be questioned whether it be necessary to attribute inspiration to every part of the Sacred Writings; and whether, without introducing some distinctions and discrimination, we shall not involve the subject in the most insuperable embarrassment? Can it be imagined that Paul stood in need of the supernatural influence of the Divine Spirit on his mind, in order to recollect the injury which he had received from Alexander the copper-smith, or to remind him of the cloak and parchments which he had left at Troas? Could those historical parts of the O. T., which are avowed compilations from public records and other writings, require a divine superintendence in their composition; or is it at all essential to the interests of revelation to support such a position? Must Christianity sink in value and in influence, if the inspiration of the Proverbs or of the Canticles be abandoned; or must the History of the

New Testament be a mere idle fiction, unless the **Apocalypse** be maintained to be divinely authentic? In our opinion, polemics are more fearful than they *need* to be, and less discriminating than they *ought* to be, when they enter on this inquiry. If they would qualify their assertions, and confine their demonstration within certain limits, infidels would not be disgusted, and the rational friends of Revelation would be better satisfied. Mr. Dick is one of those whose zeal has outstepped his discretion. He contends for the whole, under a mistaken notion that a denial of the *plenary* inspiration of scripture tends to unsettle the foundation of our faith.

By inspiration, the author tells us, he means 'such an influence of the Holy Ghost on the understandings, imaginations, memories, and other mental powers of the writers of the sacred books, as perfectly qualified them for communicating to the world the knowledge of the will of God.' This definition refers only to the communication of the will of God: but, it may be asked, are matters of ordinary history to be regarded as a part of the Divine revealed will; and is it necessary, or even expedient, that a preternatural influence should pervade the mind of an historian who writes the transactions of a prince, or the travels of an apostle? There are parts of Scripture, in which inspiration must be supposed: but are we justified in asserting that it pervades every part of the writings which composed the Sacred Volume?

Though we cannot acquiesce in Mr. Dick's wholesale hypothesis, yet we are ready to allow him the merit of ingenuity, and of having been actuated by the best of motives in the compilation of the essay before us. The peril of the present times, he remarks, loudly calls on us to examine with care the evidences of our religion; and to make ourselves acquainted with the arguments by which the inspiration of the Scriptures is demonstrated. To assist those who are willing to engage in an inquiry of this nature, the author has composed his essay; in which he prescribes for himself the following plan:

First, to give an account of the inspiration of the Scriptures; or to shew in what sense he believes them to be inspired.

Secondly, to point out those writings of which the inspiration is asserted by the Christian Church, and assign some reasons why we attribute a divine original to these alone.

Thirdly, to prove the inspiration of the Scriptures by a variety of arguments.

Lastly, to consider the principal objections of infidels against their inspiration.

This plan is sufficiently comprehensive to include every thing that may be advanced on the subject:—but where is the neces-

sity for instituting the inquiry, when it is expressly asserted that "all Scripture is given by inspiration of God?" (2 Tim. iii. 16.) To this question, Mr. Dick himself very ingeniously replies, 'that this assertion is not a sufficient reason, why we should believe the inspiration of the Scriptures. The same claim is advanced by books, which we certainly know to have been written by wicked and designing men. According to the principles of common sense, and impartial reasoning, the testimonies of the Scriptures in their own favour ought not to be admitted, any more than the testimony of any other writing concerning itself, till we see it supported by satisfactory evidence.' Though the author makes this fair concession, however, he does not bear it in his mind; and hence his reasoning is not always pure and convincing, any more than his assertions are uniformly correct. He says that 'all the miracles, which were wrought in confirmation of the Gospel, must be considered as having been wrought in confirmation of the books in which the Gospel is recorded.' This is not a necessary consequence. Miracles in attestation of a divine mission are altogether distinct from the Miracle of Inspiration.

Though the Old Testament precedes the New, both as to time and place, Mr. Dick thinks that his purpose will be more easily and effectually accomplished by inverting this order; he therefore begins with considering the Inspiration of the N. T., adducing both the external and internal evidence. Respecting the former, he observes that the inspiration of the N. T. may be inferred from the credit, which the testimony of the writers concerning Christ obtained in the course of their public ministry, and from the reception of the books of the N. T. by those to whom they were first presented; and the latter, or internal evidence, from the character of Christ therein delineated, the system of doctrine, and the prophecies which they contain.

After having brought forwards his proofs for the inspiration of the New Testament, the author proceeds to the consideration of that of the Old; when he remarks that, 'if the N. T. be once proved to be inspired, the inspiration of the O. T. must be admitted without farther proof, because its books are explicitly recognized in the former as divine:' but Mr. D. does not rest the matter on this single argument. He distinctly examines the Books of Moses, the historical books, and the prophetical.

To the examination of the Old and New Testaments, the author has subjoined what he terms 'Proofs of the Inspirations of the Scriptures in General:' these are their sublimity, their piety, their purity or holiness, their efficacy, their harmony, and their miraculous preservation,

In considering the Objections against the Inspiration of the Scriptures, the writer makes distinct replies to those arguments which are adduced from the sufficiency of the Light of Nature, from the partial communication of the Scriptures, from their divine authority being incapable of proof, from their supposed contradictions, from their containing doctrines mysterious and contrary to reason, from their relating things unworthy of God, and from their style not being so dignified, so elegant, and so conformable to rule, as we might expect to find it in divine writings.

Mr. Dick's mode of resisting the attacks of Infidelity may be collected from the following extract ; which is part of the reply to the 6th class of Objections :

‘ It is asserted that the Scriptures cannot be inspired, because many things in them are unworthy of God. Of this nature are those descriptions which represent him as clothed with the members and actuated by the passions of a man ; certain precepts which seem to be immoral and inhuman, as the command to Abraham to offer up Isaac, to the Israelites to borrow from the Egyptians, and to the same people to destroy the nations of Canaan ; many of the laws of Moses, and in particular, those which are usually termed ceremonial ; and a variety of passages, which are said to be trifling, obscene, and cruel, and to imply an approbation of base and criminal actions.

‘ I might content myself with referring to the authors who have treated of this subject, for an answer to all these particulars, a full consideration of which would lead to a discussion far exceeding our limits. A few hints, however, may be given with a design to shew, in what manner these apparent difficulties may be removed.

‘ When human members, and human passions, are attributed to God, the description is evidently figurative, and is intended, through the medium of sensible ideas, with which we are familiarly acquainted, to assist us in conceiving his infinite perfections. If such descriptions be supposed to be liable to abuse ; if they seem calculated to beget and cherish gross conceptions of the Deity, as a corporeal and imperfect being ; it should be considered that the danger is obviated in other places of the Scriptures, where, dropping the language of metaphor, the inspired writers give the most sublime views of his infinite greatness and glory. It will be acknowledged by every person acquainted with the history of human opinions, that the Bible was the first book, which taught the pure spirituality of the essence, and communicated just ideas of the immensity and immutability of God.

‘ The command to Abraham to offer up his son, will not appear objectionable to any person who reflects, that the power of life and death belongs to the supreme Governor of the universe, who may delegate it for sufficient reasons to another, or employ another as his minister to exercise it. The design of the command was important,

namely, to try the faith of the patriarch, and to exhibit an example of cheerful, unreserved obedience to all succeeding generations.

‘With regard to the command given to the Israelites to borrow from the Egyptians, I observe, that, according to the best critics, the word rendered *to borrow* may be translated simply *to ask*, and thus the difficulty vanishes. The sovereign Lord of all had transferred a right to the property of the Egyptians to the Israelites, whom the former had long defrauded and oppressed. That they might be put in actual possession of it, he directed them to make a simple demand from their neighbours, without subjoining any promise, or giving any expectation that it would be returned. If it should seem improbable that an unconditional request would be granted, especially as it was the request of slaves to their unfeeling and imperious lords, we have only to recollect, that the miracles wrought by Moses were beginning to procure respect to the Israelites, and that according to the sacred story, “God gave his people favour in the sight of the Egyptians.”

‘The command to the Israelites to destroy the seven nations of Canaan is explained nearly in the same manner as the command to offer Isaac in sacrifice. When a nation hath forfeited by its crimes a claim to life, he who might swallow up the guilty by an earthquake, or consume them by famine and pestilence, may commission another nation to be the instrument of his vengeance. If the command seem difficult, because the Israelites could not obey it without feeling personal enmity, or being animated by a cruel and vindictive spirit towards the devoted victims, it should be considered, that it was equally possible for them to act in this instance without improper motives, as for a magistrate, from a love of justice, and zeal for the public good, to order the execution of a criminal, whom he pities as a man. On the supposition that some of the Israelites were enflamed by private resentment, or a thirst for blood, the blame was entirely imputable to themselves. The divine command was not the cause of their malice and barbarity, but merely the occasion of their displaying the bad dispositions, which previously lurked in their breasts.’

The work concludes with a serious exhortation to the reader to be thankful for the Scriptures, to cherish faith in them, to read them with humility of mind and with reverence, to make himself well acquainted with them, and to constitute them the only rule of his faith and practice.

‘As this Essay contains the substance of a course of Sermons which the author delivered to his Congregation, he naturally accompanied the argument with some practical exhortations, and he has done right not to omit them in his publication.

ART. IX. *Mineralogy of the Scottish Isles*; with Mineralogical Observations made in a Tour through different Parts of the Mainland of Scotland, and Dissertations upon Peat and Kelp. Illustrated with Maps and Plates. By Robert Jameson, F. R. and A. S. Edinburgh, of the Linnæan Society of London, &c. &c. 4to. 2 Vols. pp. 243 and 279. 1l. 11s. 6d. Boards. White.

IN our xxxth vol. N. S. p. 11, we had occasion to notice, with much approbation, a former work of this gentleman, in one vol. 8vo. intitled, "an Outline of the Mineralogy of the Shetland Islands, and of the Island of Arran," &c. &c. We then observed that the publication at that time before us was the first regular piece of Scottish Mineralogy which had appeared in print, and that it exhibited undoubted marks of active and successful research. The present volumes afford ample confirmation of our former opinion of Mr. Jameson's talents, and also furnish abundant new matter which raises his scientific merit still higher in our esteem. They contain the whole of the former publication, very much improved; together with the geological and mineralogical descriptions of most of the Western Islands, and other considerable additions, of which we shall now present a general view to our readers.

The Introduction gives an abstract of the Wernerian account of the different kinds of mountain-rocks, with geognostic notices of the Strata of the Scottish Isles, and such parts of the mainland as are mentioned in the work. The author here remarks that, according to the latest observations, all the strata of our globe may be arranged under the following classes: 1. Primary, (*Urbürge*), such as granite, gneiss, &c. &c.—2. Transition, or Transitionary rocks, (*Übergangsgebürge*), including Granwacken, Granwacken Slate, Mandelstone, and others.—3. Stratified, (*Flötzgebürge*), consisting of Sandstone, Limestone, Argillite, Basalt, and Coal Strata.—4. Volcanic, such as Lava and Pumice.—5. Alluvial, (*Aufgeschwemmte*), comprehending Gravel, Sand, Clay, &c. &c. &c. Having formed this division of the rocks, which is founded on the supposed relative antiquity of their formation, Mr. Jameson concludes this part with some geognostic observations on the rocks of the Scottish Isles.

After this introduction, the author proceeds to describe the rocks and strata which occur on the road from Edinburgh to Glasgow, and at the Craig of Ailsa. The Island of Arran is also depicted, as in his former work; but some additions have been made relative to its mineral productions.—From Arran we are conducted to the Islands of Bute, Isla, and Jura. Speaking of Isla, Mr. Jameson observes that, besides the veins of lead

lead-ore which have been worked with considerable advantage, copper, silver, and even quicksilver have been found there.

The 12th chapter contains an account of a voyage from Jura to the Slate Islands of Seil and Easdale, and thence to Oban and the Isle of Mull.

* The Slate or Ardesia of Easdale (says the author, p. 195.) was first quarried about 100 years ago; but was for a long time of little importance, as sandstone flag and tiles were generally used for roofing houses. As the use of slates became more prevalent, the quarries were enlarged; and the present managers having obtained a very favourable lease, these quarries have been wrought to so great an extent, that 5,000,000 slates are annually shipped from this Island.'

One of the greatest strata of coal, that has yet been discovered in the Western Islands, is found on the Hill called Bein-an-ini, in the Island of Mull, but it has not been properly worked.—Mr. Jameson closes the first volume with an account of the method employed for discovering coal.

In the beginning of Volume II. we find an outline of the Mineralogy of I-columb-kill and Staffa. The Basaltes of the latter, with Fingal's Cave, are in course particularly noticed; and the author has availed himself of the description of this magnificent scene, which was communicated by Sir Joseph Banks to the late Mr. Pennant.—Mr. Jameson then gives an account of Coll and Tirie; the latter of which Islands affords some remarkable marbles, as well as a substance which appears to be a species of the Corundum Stone, or Adamantine Spar.—We next find a sketch of the Mineralogy of the Islands of Eigg, Rume, and Canna; in his account of the former of which, Mr. J. relates an affecting anecdote:

* The minister of this parish, who was so good as to accompany us to several parts of the island, led us, by a very rugged path, to a wild sequestered spot, where there is a cave, remarkable, in the annals of this isle, for the murder of the Macdonalds, inhabitants of Eigg, by the Macleods of Skye. As the story is truly characteristic of the state of society in those parts at that period, I think it will not be uninteresting to relate it shortly.

* A party of the Macleods having landed upon the small island of Eilan-Chastel, behaved so outrageously to the women who were there tending cattle, that their friends instantly pursued, and put several of them to death. This so enraged the clan of Macleod, that they determined to take revenge, by ravaging the isle, and putting to death the murderers of their brothers. The islanders, sensible of their weakness, prepared to shelter themselves, upon the first appearance of an enemy. Soon afterwards a number of boats were seen approaching the isle; when the trembling inhabitants retired, in despair, to this cave, their only refuge. The Macleods soon landed, and traversed the whole island; but, as they could discover no human being,

being, they concluded that the Macdonalds had made their escape to the mainland, or to some of the adjacent islands. Disappointed and enraged, they were about to leave Eigg, to return to Skye, when unfortunately one of the horde observed the mark of footsteps on the snow, and thus they were enabled to discover the cave where the wretched inhabitants had taken refuge. Shrieks of despair were interrupted for a little, by a proposal of the Macleods, that if the murderers were given up to punishment, the other lives should be spared. This was only a cruel aggravation of their sufferings, as the Macleods were the aggressors. Connected, as the Macdonalds were, by the dearest ties, they determined to perish together, rather than to give up one of their number. The Macleods, with the most savage barbarity, instantly kindled great fires at the mouth of the cave, which soon suffocated the whole of the miserable inhabitants.*

Near to the cave which has been mentioned, are two veins of black Pitchstone, accompanied by Hornstone in Basalt; and Mr. Jameson observes (p. 45.) that, although Pitchstone has been discovered in various parts of Europe, it has not before been described as belonging to the rocks of Trapp formation.

Chapter 21. gives an outline of the mineralogy of the island of Skye.—Here are some considerable caves; one of which, at Cameasketel on the south side, is famed for having afforded shelter to Prince Charles, (as he was styled,) when he was endeavouring to effect his escape from Scotland after the battle of Culloden.—In addition to the mineralogy of Skye, we also find some notice taken of the productions of the Islands of Rasay, Rona, and Scalpa.

The observations on Peat, in the 24th chapter, need not now to be detailed, since they are exactly the same as those which were contained in the author's former publication:—neither does the journey from Bernera to the Frith of Forth require to be particularly noticed; excepting that in p. 165. Mr. Jameson controverts, with some apparent success, the opinion of the late ingenious Dr. Hutton relative to the origin of Granite, which the Dr. supposed to be posterior to some of the strata that cover it.

In order to render the present work more complete, Mr. Jameson has added an outline of the Mineralogy of the Orkney Islands, founded on observations made during a visit to them in 1799. These isles appear to consist principally of sandstone, and are far from affording any thing interesting to a Mineralogist.

Kelp being of great importance to the Orkney Islands, Mr. Jameson, in a subsequent chapter, introduces his former observations on this substance*. We shall transcribe his table

* See some farther account of Kelp, M. R. N. S., vol. xxxiv. p. 49.

of the proportions of Alkali contained in different kinds of Barilla and Kelp :

	In the 100lb.
• Barilla and Alicant—good	23 $\frac{1}{2}$.
Teneriff—bad	8 lb. 7 oz. 120 gr.
Kelp from Norway—indifferent	2 lb. 11 oz.
Shetland—indifferent	2 lb. 6 oz.
Lewis—indifferent	2 lb. 11 oz.
Ibid—indifferent	2 lb. 6 oz.
West Highlands—much damaged	1-3d of lb.
Arran	3 $\frac{1}{2}$ lb.
Isla—good	4 lb.
Mull—good	4 $\frac{1}{2}$ lb.
Morven—good	4 $\frac{1}{2}$ lb.
Island Skye—good	5 lb.
Leith shores	4 lb.

The work is terminated by an account of the author's journey from Huna, on the coast of Caithness, to the Frith of Forth.

ART. X. *Geological Essays*: By Richard Kirwan, Esq. F.R.SS. London & Edinburgh, M.R.I.A. &c. &c. 8vo. pp. 502. 8s. Boards. Elmley.

THE object of this celebrated chemist, in the present publication, is to collect the principal facts and opinions which relate to the structure of the globe, from the best writers: by which re-union of views, he thinks, the correctness of the Mosaic account of the *Creation and Deluge* may be established. He supposes the surface of the primeval globe to have been in a liquid state, and the earths and metals to have been held in solution by the chaotic fluid, from which they subsequently crystallized; and he then proceeds to remark that

‘ It is a fact at present well established, that in the act of crystallization a very considerable degree of heat is generated. Judging by analogy, how great then must have been the heat produced by the crystallization of such immense quantities of stony masses as took place at this period? the immediate effect of which must have been an enormous and universal evaporation, sweeping over the surface of the heated fluid according to the inequality of its diffusion and of the causes that produced it in various tracts.

‘ The heat thus produced must have been still farther increased in consequence of an event which naturally resulted from the degree at first excited. For in consequence of the heat and evaporation, the quantity of the chaotic fluid (the universal menstruum) as also its specific gravity, were diminished, and thus the substances contained in it (of which it was not the most natural solvent) were still more disposed to precipitation, as usually happens in such cases; thus then
the

the ferruginous particles naturally not soluble while, in their metallic state in any fluid, and of which immense quantities existed, were rapidly and copiously precipitated; the aqueous particles intercepted between them must in that case have been decomposed, and an immense quantity of inflammable air set loose. The heat thus produced increasing with the masses operated upon, must have risen at last to incandescence; in that circumstance the oxygen absorbed must have been in great measure expelled, and in its nascent state meeting and uniting with the inflammable air must have burst into flame. The progress of such high degrees of heat must have disengaged all the oxygen contained in the contiguous chaotic fluid, which uniting partly with more metallic iron, partly with the sulphurated and partly with the carbonic and bituminous substances, must have occasioned a stupendous conflagration, the effects of which may well be supposed to have extended even to the solid basis on which the chaotic fluid reposed, and to have rent and split it to an unknown extent.

‘ That flame should thus burst from the bosom of the deep is not a forced supposition, but has frequently been verified in latter times. I shall only mention one instance which happened in the beginning of this century, when flames burst out of the sea near Tercera, and an island was elevated.’

The production of the gaseous fluids is explained from the heat thus diffused through the atmosphere. The successive elevation of the mountains, and formation of the plains, are deduced from the same principle: but through this part of the work we cannot pretend to follow the author's process minutely. He combats Buffon's theory of the origin of limestone, and shews that it must have existed before the creation of fish.

Mr. K.'s opinions on the formation of Secondary Mountains are thus delivered:

‘ To form as just an idea of the formation of secondary mountains as the nature of an object inscrutable to human eyes can allow us, we must observe, 1^o, That the greater part of the particles of solid matter contained in the chaotic fluid being deposited before the creation of fish, the various materials that enter into the composition of secondary mountains must have been furnished either by the destruction of such of the primary as existed in the sea, but either from want of solidity or the smallness of their mass were too feeble to resist its impetuosity when animated by storms, and being by continued friction reduced to atoms, or rolled into tumblers, were either diffused through, or hurried along by the agitation of the waters, or were crumbled to pieces by earthquakes, and variously dispersed through the ocean, or these materials were ejected in immense heated masses, by submarine volcanoes, into the bosom of the waves, to be by them farther comminuted, disintegrated, or decomposed.

‘ The various solids thus diffused at different periods of time through the vast body of the ocean, must have been gradually precipitated and deposited on such solid masses as resisted the progressive motion

motion impressed upon the precipitating masses by that tumultuous element; hence they applied to and rested on the low lateral surfaces of many of the most considerable primary mountains, or were accumulated on the scabrous but firmly rooted fragments of such of those mountains as were before destroyed, intombing the shell-fish that adhered to or rested upon these fragments, and arresting by their initial softness the various sunk woods and such other vegetable or animal substances as chanced to be mixed with these precipitating masses, or were subsequently borne upon them. Trees naturally assumed the situation that afforded least resistance to the currents that conveyed them, and hence the uniformity that has been observed very frequently in their position. These depositions, when during their descent they attained a certain degree of density, must have proved fatal to the various species of fish which were involved in them, and hence the origin of the more solid piscine remains at present found in them; the softer parts being destroyed by putrefaction, in this manner, but after long intervals of time, the succeeding strata appear to have been formed, but they did not attain their present solidity until after the retreat of the sea, and through the operation of causes which I shall presently mention.

From these premises, Mr. Kirwan deduces explanations of the principal geological facts, for which we must refer to the work. He then undertakes to compare his theory with the Mosaic account; in which he displays, as usual, great ingenuity, but in which the different classes of philosophical readers can scarcely be expected to agree.

In the next Essay, the author treats of the *Deluge*; and after having examined the different hypotheses which have been formed on this subject, he adopts the Mosaic account of that wonderful event.

The third Essay treats of subsequent partial changes in the state of the Earth; and here the separation of Asia from America is attributed to excavations produced by volcanoes. On the effect of volcanic eruptions in general, however, Mr. Kirwan thinks that the speculations of some late philosophers are much exaggerated; and he particularly attacks those accounts of volcanic mountains, which have been supposed to carry the antiquity of the earth beyond the Mosaic date.

In the fourth Essay, on *Lapidification*, we meet with several interesting remarks which it would lead us beyond our limits to extract: but we shall quote the following curious instance of petrification:

‘ In some cases, the interior or more central parts of the organised substance first decay, while the exterior remains sound; in such cases the petrifying operation takes place only in the interior: this has often been observed in woods where the wood is of a species that strongly resists putrefaction, or the water in which it is lodged is but slightly impregnated with petrescent particles, the petrification very

slowly takes place; of this we have a memorable instance in one of the timbers that supports Trajan's bridge over the Danube, some miles below Belgrade. About the year 1760, the emperor of Germany being desirous to know the length of time necessary to complete a petrification, obtained leave from the sultan to take up and examine one of these timbers. It was found to have been converted into an agate, to the depth only of half an inch; the inner parts were slightly petrified, and the central still wood. Undoubtedly the timber employed was of the kind least subject to rot, and the Danube is not known to contain any notable quantity of siliceous particles; but the fact is important, as it proves to a demonstration, that siliceous particles are soluble in water, are taken up by wood, that petrifications are carried on in appropriate circumstances in modern times, and the successive process of petrescence as above stated.

Essay V. relates to the *Decomposition and Disintegration of Stony Substances*. The external causes of these processes are stated to be, water, oxygen, and fixed air: the internal saline substances, sulphur, slightly oxygenated calces of iron, or of manganese, lime, argil, bitumen, carbon, and mephitic air. The effects of these agents are particularly considered.—Mr. K. next treats of *Mountains*; and, after some general observations, he proceeds to analyse the *Primitive Mountains*:

‘The materials of which they consist, (he says) or which they contain in different instances, are ganites and stones of the granitic classes, as granitines, granitells, granilites, sienite, grunstein, or gneiss, shistose mica, siliceous shistus, basanite, hornslate, shistose or horn porphyry, jasper, petrosilex, quartz, pitchstone, hornblende, hornblende slate, argillite, trap, wacken, mandelstein, porphyry, serpentine, pott stone, sand stone, breccias, pudding stone, rubble stone, granular limestone, fluors, gypsum, topaz rock; for sand stone and rubble stone may be primeval, being formed after the crystallization of the greater masses.

‘Some of these are common both to primeval and secondary mountains, as trap, argillite, porphyry, sand stone, breccias; parasitic stones are omitted.’

The nature of these component parts is afterward examined, with a minuteness and an accuracy that preclude abridgement. The observations on *Trapps* are peculiarly interesting.—It is remarked that primeval mountains are not always simple in their structure, but that they are sometimes *polygenous*, or having their component parts superimposed on each other. Of this species of composition, different examples are given.

Secondary, or Epizootic Mountains now come under consideration; and of these Mr. Kirwan observes that

‘The principal character by which *derivative* mountains are distinguished, consists in their exhibiting vegetable substances, or petrifications, or at least their impressions, or land shells, as those of
snails,

snails, or fluviatile shells, with either none, or scarce any marine remains, though some of diluvian origin may exhibit these also.

Secondary mountains are either formed of one species of stone, or of strata of different species, one covering or alternating with the other; the former, I call *unigenous*, the latter *polygenous*: these are commonly *stratified*, the former often not. In some, different species are jumbled together, these I call *saragenous*; they are by some called *tertiary*, as resulting from the ruins of other mountains, tumultuously and promiscuously heaped together. The substances that form secondary mountains are either calcareous, of which there are various species, or *argillaceous*, or *siliceous*, or *arenitic*, or *ferruginous*, or *saliniferous*, or carboniferous; of both these last mentioned I shall treat apart. The strata of secondary mountains frequently correspond with each other both in number, species, and thickness, in different mountains, not very distant from each other, as in West Gothland, &c.

Although no certain order prevails in the disposition of secondary strata, yet there are particular dispositions, which, according to Voight, 2 Berg. 1793, 211, are constantly excluded; thus coal is never found under primitive argillite, &c. but he certainly, in his other instances, only proves that primitive stones are not found over secondary. According to Dolomieu, no stratum of crystallized, or granularly foliated stone, is ever found in secondary mounts. 8 Sauss. 284. he must except gypsum.

After a particular account of these substances, the author advances to the subject of *Volcanic Mountains*. In this chapter, Mr. K. offers his reasons for believing that volcanic mountains do not consist entirely of matter thrown up by the force of subterraneous fire: which considerations relate chiefly to the size of Vesuvius and *Ætna*, prior to their first recorded eruptions; to the calcareous nature of the country round *Ætna*; and to the calcareous matters which have been repeatedly discharged from its crater.

The sixth Essay treats of the *Internal Arrangement of Mountains*, in which the late ingenious Mr. Whitehurst's opinion of the great original regularity of the strata is disputed.

Essay VII. relates to *Coal Mines*, and the Soils on which they are found. Mr. Kirwan opposes the theory of the vegetable origin of coal; and, from a variety of considerations, he draws the following inferences:

1st, That natural carbon was originally contained in many mountains of the granitic and porphyritic order; and also in siliceous shistus, and might, by disintegration and decomposition, be separated from the stony particles.

2dly, That both petrol and carbon are often contained in *trap*, since hornblende very frequently enters into its composition.

My opinion, therefore, is, that coal mines or strata of coal, as well as the mountains or hills in which they are found, owe their origin to the disintegration and decomposition of primeval mountains, either

either now totally destroyed, or whose height and bulk, in consequence of such disintegration, are now considerably lessened. And that these rocks anciently destroyed, contained, most probably, a far larger proportion of carbon and petrol, than those of the same denomination now contain, since their disintegration took place at so early a period.'

This supposition is pursued to a considerable extent, in explaining the different phænomena of the strata of coal.

The eighth Essay treats of *Common Salt*, and its Mines.—Here the author explains the cause of the saltiness of sea water, by supposing that the muriatic acid and soda had existed in the chaotic fluid, and that the vitriolic acid was a subsequent product.

Metallic Mines are briefly considered in Essay IX.

Essay X., and last, consists of observations on the *Huttonian Theory of the Earth*: but, as it is entirely controversial, we shall not enter into its merits.

This volume will undoubtedly obtain general circulation among philosophical readers, on account of the known character of the author, and the interesting nature of its contents.

ART. XL. *A Tour round North Wales*, performed during the Summer of 1798: containing not only the Description and local History of the Country, but also, a Sketch of the History of the Welsh Bards; an Essay on the Language; Observations on the Manners and Customs; and the Habitats of above 400 of the more rare Native Plants; intended as a Guide to future Tourists. By the Rev. W. Bingley, B. A. F. L. S. of St. Peter's College, Cambridge. Illustrated with Views in Aquatinta by Alken. 8vo. 2 Vols. 1l. 1s. Boards. Williams. 1800.

WHETHER the increase of Welsh Tours has been encouraged by their favourable reception with the public, or whether they are productions of more pleasant and easy labour than other literary works, we shall not venture to pronounce: but, whatever the cause may be, the fact certainly is that we have been furnished with a supply at least equal to the demand. The author of the present volumes informs the reader that 'he was induced, by the accounts he had at different times received of the stupendous and picturesque scenery of some of the counties of North Wales, to spend three months that he had to spare from his College avocations, in that romantic part of Great Britain.' His mode of travelling was chiefly on foot; which, when health and strength are not wanting, Mr. Bingley considers as the most useful and convenient to the tourist, especially if he be a naturalist. The general expences of travel-

ling in Wales, he remarks, are little less than on the roads in the central parts of England.

Mr. B. commences with an account of Chester, from which place he directed his route by Hawarden Castle, Flint, Holywell, St. Asaph, Conway, Bangor, Caernarvon, into Anglesea; and thence by Harlech, Mahynleth, Montgomery, &c. making first a complete circuit of N. Wales, and afterward proceeding to Bala, and thence to Shrewsbury. Of each of these places, the author has given a short description and history; the materials of which are not all supplied from his own observations, but are principally drawn from works with which the public have been long well acquainted. Extracts from these are introduced with more ceremony than propriety; and with little scruple respecting their length. Thus, of Snowden, the author writes; 'Mr. Pennant's description of this mountain is so extremely accurate and expressive, that instead of my own observations I will give that in his own words.'—Again; 'the following lines from the Gentleman's Magazine on this mountain are so energetic and full of beauty, that I could not resist the temptation of transcribing them in this place.'—'Of the story of Sabrina, Milton has given us so elegant and poetical a description, that I cannot resist the temptation of following Mr. Pennant's excellent example in transcribing it here.'—Other instances occur, of the author's *inability to resist this sort of temptation*; and at the end of the tour he has, 'at the desire of some of his Welsh friends,' added two letters written by the late Lord Lyttelton, giving an account of his journey into Wales, and published in his miscellaneous works.

This method of fabricating a book of travels, we think, scarcely deserves to be tolerated, though it may form altogether an entertaining work; and indeed we suspect that the unfavourable impression, which it made on us, prevented our receiving pleasure from such parts of Mr. Bingley's volumes as are properly his own. The style is, in general, plain and natural, for which the author has given himself credit.—He accuses Mr. Warner of having, among other errors, mistaken Bangor, in Caernarvonshire for Bangor in Flintshire: but, in some of his criticisms, Mr. B. is not fortunate. On the following passage of Camden, concerning the river Clwyd, "though the valley at the mouth of the river *seems* lower than the sea, yet it is never overflowed; but by a natural, though an invisible impediment, the water stands on the very brink of the shore, to our just admiration of the Divine Providence;" he remarks; "if the marsh only *appears* lower than the sea, without being so, there certainly seems no wonder at all."—The word *seems* is as much misapplied by this tourist as by Camden; for it must be allowed

allowed that there *seemed* to be a cause for wonder, though it is probable that in reality none existed.

The account of Merionethshire supplies us with a description of a *Watering-Place* which is perhaps not much known to our readers. We therefore copy it, as a specimen of the work:

‘Barmouth is placed in one of the most disagreeable situations that could possibly have been chosen for it, near the conflux of the river Maw, or Mawddach, whence it is called by the Welsh, Aber Maw, and from this Berthaw, or, corruptedly, Barmouth. Some of the houses are built amongst the sand at the bottom, and others at different heights, up the side of a huge rock, which entirely protects the town on the east. Their situations are so singular, that it is really curious for a stranger to wind up along the narrow paths amongst the houses, where, on one side, he may, if he please, enter the door of a dwelling, or on the other, look down the chimneys of the neighbourhood in front. The lower part of the town is almost choaked up with sand, which fills every passage, and in wet weather, it is extremely dirty and unpleasant. The houses are the most irregular possible—in short, it appears to be such a place as nothing but the pleasures of society can render at all comfortable.

‘It is frequented during the summer season by many genteel families from Wales, and the west of England, as a sea bathing place. Mr. Robert Vaughan of Hengwrt, in his *Sketch of the History of Merionethshire*, seems to ascribe its origin to persons frequenting the banks of the Mawddach, “by reason of the herb scurvy-grass which grows there in great abundance.”

‘The company must find it an uncomfortable place, for the inn (the Cors-y-gedol Arms) is at times almost buried in sand, and a person cannot walk many yards from the door without being up to the ankles in it. Added to this, a strong westerly wind blowing it against the windows and into all the rooms, must render it horribly unpleasant, and were it not for the civility of the hospitable Mrs. Lewis, the place would fail in one of its chief attractions.

‘I was beyond measure surprized upon being introduced into the dining room, to find upwards of thirty persons, most of them of fortune and fashion, in so secluded a corner of the kingdom. I found too upon enquiry, that this was by no means all the company at that time in the town, for another large and good building, which Mrs. Lewis had in her own hands as a lodging house, was also quite full. To be again introduced, as it were, into the world, after my solitary rambles amongst the wilds of this country, made a most pleasing variety in my tour; and I enjoyed very much the cheerfulness and affability of every one present.

‘The lodging houses in the town, are many of them dirty and miserable places. There are at Barmouth, three bathing machines, but these are entirely appropriated to the use of the ladies, the gentlemen bathing on the open coast. The amusements seem to consist in going out in parties on the water, or in lounging on the sands or beach. The latter is one of the most delightful walks I ever beheld. The wide river Mawddach winds amongst the mountains, forming

many and elegant promontories; these rise to great heights on each side, some clad with wood, and others exhibiting their naked rocks scantily covered with the purple heath. The summit of the lofty Cader Idris is seen to rise high above the other mountains in the background. Had the town been built here, scarcely half a mile from its present situation, instead of one of the most unpleasant, it might have been made one of the most agreeable retirements in the kingdom.

‘Within the last three years, the number of visitors to this place has been much increased, which I can attribute to no other cause but the civility of the good hostess. She makes it her study to please every one, and she is so fortunate as seldom to fail.

‘Barmouth is the port of Merionethshire; but Mr. Pennant says, it is not so much frequented as it ought to be, on account of the inhabitants (who do not attempt commerce on a large scale) vending their manufactures through the means of factors, who run away with many of the advantages which the natives might enjoy; yet this gentleman was informed, that a few years prior to the publication of his tour, forty thousand pounds-worth of flannels, and ten thousand pounds-worth of stockings, had been exported from hence in the course of a year. The number of ships at present belonging to this port, is about a hundred. The population of the place is estimated at sixteen hundred.’

In his observations on Bardism and Music, Mr. B. says, he ‘cannot conclude this account more appropriately, than by inserting Mr. Jones’s description of the music of his own country.’ Fifteen tunes, as specimens of Welsh music, are then added; ‘six of which are taken from Mr. Jones’s excellent collection; the rest (says the author) I wrote from the harp. In the airs that I have selected, I have changed the keys of some of them, and altered their basses, that they might be the better adapted to the harpsichord.’ What the basses were originally, this work affords us no means of judging: in their altered state, they cannot be highly commended.

The chapter on the Welsh tongue contends for its resemblance both to the Hebrew and to the Greek languages, and many striking instances of agreement are certainly pointed out. Some of the writer’s remarks are worthy of attention, and perhaps of leading to farther research; especially his observations on the artificial structure of Welsh poetry. He seems fully sensible of the literary importance of the language of our forefathers: but, as an Englishman, his knowledge of it has not enabled him to treat the subject with great profundity. The claim preferred by him in behalf of the ancient British, to the Saxon alphabetical characters, appears to us to be new; and it may afford a very fit bone of contention between Cambrian and Anglo-Saxon antiquaries. The researches, indeed, which such a contest would occasion, would probably be beneficial.

At the end of the tour, Mr. B. has given an Itinerary, and a catalogue of 'the more uncommon Welsh plants, with their places of growth.' These are useful parts of his book, and appear to be the produce of his own industry and observation. The plates, likewise, are engraved from his own designs, and have considerable merit.

ART. XII. *A Tour through Part of North Wales, in the Year 1798, and at other Times; principally undertaken with a View to Botanical Researches in that Alpine Country: interspersed with Observations on the Scenery, Agriculture, Manufactures, Customs, History, and Antiquities.* By the Rev. J. Evans, B. A. late of Jesus College, Oxon. 8vo. pp. 416. 8s. Boards. White. 1800.

IN the preface to this volume, Mr. Evans informs his readers that the chief purpose of the journey here recorded was to collect materials for a *Flora Cambrica*, which it is his intention to publish at some future period. The design of the present work, however, is less to convey botanical details, than to describe other objects which attracted the author's attention. 'Every traveller (he remarks) sees, or fancies that he sees, something unobserved before, and that he is capable of communicating knowledge not imparted by others. The desire of relating what was pleasant to behold, or difficult to obtain, induces him to conclude that whatever was important to himself must be important to mankind.'

The account of this tour is given in the form of letters addressed to a friend. Mr. E.'s route is nearly the inverse of that of Mr. Bingley: (see the preceding article:) he commences from Shrewsbury; whence entering North Wales, he describes a track through Welsh Poole, Powis Castle, Llanvafr, Montgomery, Bala, Llyn Tegid or Pimble Meer, Dolgellen, Barmouth*, Caernarvon, Bangor, Conway, Llanrwst, Corwen, and Chirk. It is a recommendation of the work, that the author does not, like some of our late tourists, labour to excite in himself admiration and enthusiasm: the satisfaction which he expresses appears genuine and spontaneous; and though he sometimes strays into flowery description, his reflections do not occupy an unreasonable portion of his book, nor are they oppressively sentimental. An extract or two will justify this praise, and gratify our readers.

In passing from Tan-y-Bwlch, over the wild mountains of Merioneth to the towering heights of Caernarvon, we meet with the following description of a storm in these Alpine regions:

* Mr. Evans's account of this place is not materially different from that of Mr. Bingley, though rather more inviting:—see, p. 387.

‘ However difficult we found the acclivities, the trouble of descending the Cwms, into the vales, was still more so. Both ourselves and beasts, sometimes up and sometimes down, were glad of every shelf in the rock as a place of halting. Hitherto we had borne up with tolerable temper, full of the idea, that *Pont aber glas Lyn*, would more than compensate for any temporary inconvenience; but we were now to encounter a scene that beggars all attempts at description, an *Alpine storm*.

‘ The morning was lowering, and as we gained the different ascents, the peak of Snowdon, *Moel y Wyddfa*, capt with clouds, became invisible. The darkness began to gather round, as we proceeded; and we perceived driving clouds passing rapidly beneath our feet, round some of the hills we had just ascended. The sheep were filing down the declivities for shelter, as though apprehensive of danger.

‘ From these appearances our guide prognosticated an approaching storm; we halted and deliberated what was best to be done; but being rather more than half way towards *Bedd Kelert*, deliberation only served to remind us of our unpleasant situation. To retreat our steps would have been attended with equal inconvenience as proceeding. The country afforded no shelter; no vestige of a hut; nor was it to be expected in a country devoid of vegetation.

‘ The darkness momentarily increased, the misty clouds left their towering heights, and gaining strength by approximating towards the heavier ones beneath, soon became formidable from coalition. The winds became clamorous from the West and North; and, meeting with currents from the mountain vistas, soon blew an hurricane. All foreboded a dismal issue. The guide forgot his usual gaiety and loquacity, and began to shake and mutter a few inarticulate sounds. Despairing of making our escape, we relaxed in our exertions, and became less quick and firm in our steps: the very beasts shook their heads and snorted, as though sensible of the perilous situation.

‘ A general torpor at length seized the whole party; and visibly panic-struck we patiently waited the assailing elements; like mariners, who after every effort to save the vessel proves abortive, give up their toil in despair, and patiently look for the coming destruction.

‘ A general gloom, like that of a total eclipse, pervaded the whole atmosphere: the diversified mountain scenery we had before admired, had entirely vanished. Heaven and earth seemed blended together: the crumbling strata and shivering rock beneath our feet, afforded us the only vestiges of the latter; while in the former cloud dashed against cloud in angry conflict. To this war of elements, succeeded the fiercest torrents of rain that the imagination can conceive: to say it *poured*, would be to trifle with language: no words are adequate to a description of the storm. To those who have seen a water-spout at sea, the conception may be easy; but to those who have not, we can only say, that we appeared in the situation of persons placed under one of those mountain cataracts before described, with its waters rushing down upon our heads. To those who never have visited Alpine countries, no adequate description can be given; and to those who are familiar with them, this colouring will appear extremely faint.

‘ Impelled

* Impelled by imperious necessity to adopt every method for self-preservation, after being frequently beaten down, we had recourse to crossing arms and joining shoulders; closing like wrestlers for support. This, from the violence of the wind, at length failed; and had it not been from a circumstance, otherwise too trifling to mention, it is probable we should have been materially injured, had we escaped with life. A boy, about fifteen, had followed us several miles, to open the gates, in the walls that separate the different lordships, whom we had just before dismissed with a small gratuity. To our surprise he was not gone; but setting up a plaintive cry, he ran towards the south; and instinct induced us to follow. We were not able to keep pace with him, but found him safe lodged behind a vast rock, which raised its head above the other fragments. On a shelf of this, to the leeward, by an habit he had probably learnt of the sheep, he lay rolled up like a sleeping tortoise. Behind the covert of the same rock, we obtained shelter till the violence of the storm was past. In about an hour we were able to proceed through what, in England, would be called *heavy rain*.*

A pleasant anecdote is thus pleasantly introduced, in relating the incidents which occurred to the author at Corwen, a small town in Merionethshire:

* The only inn is the Owen Glyndwr, to which we were directed by a huge figure painted on a sign, having large eyes and a long beard, much like the Saracen's Head, meant as a likeness of the hero of the vale, who still lives in the remembrance and affections of the people of Corwen. The decent accommodations, and the pointed civility of the people, made this a comfortable retreat. Wishing for every kind of refreshment, after a long and toilsome day, I inquired for a *Tonsor*; after waiting till the supper was ready, and my patience nearly exhausted, I discovered that my meaning was not comprehended; the girl, supposing, from the time of the evening, and the custom of the place, that I must wish for the soothing sounds of music to lull me to repose, introduced a blind harper: I smiled as you may suppose; to have shewn any symptoms of disapprobation would have been calling my own taste in question, and an unfair requital of her well-meant intentions. I retained the village minstrel, and on further explaining my wants, was informed, there was no barber within many miles; that a woman shaved at Corwen, but she supposed my honour would not like to be shaved by a *woman*!—Smiling at the haughty ideas our sex were supposed to entertain of the fair, and the humble opinion she had of her own, I readily acquiesced. The girl, who understood me rather from my looks than my language, hastened her steps, and, in a few minutes, a tall stout damsel made her appearance, about twenty-five, of a fair and ruddy complexion; who, with the apparatus in her hand, and a smile upon her face, in broken English addressed herself to the company. In the one hand was a pewter jug containing hot water, in the other a case of razors and a shaving-box: wonder not at the latter, the accommodation of more polished countries; it was a present from a gentleman, whose beard she had taken off with so much dexterity and

case, as to leave an impression of gratitude upon his mind, and he had, as a token of it, made this useful acknowledgment. She proceeded to the work. Entertained with the novelty of the thing, and the perfect good humour of the operator, expressed in smiles and the softest sounds of her language, my beard was removed before—I wished, shall I say? certainly before I expected. On inquiry, I learned that *Magdalene Hughes* was the daughter of a creditable person of the town, possessed, at his death, of a small property, which, while the family remained together, was sufficient to keep them, but that some were married and some dead, and she was left with an aged mother, and had taken up this odd, but profitable trade, as a means of procuring subsistence for both. I never had my beard more easily removed; but, independent of this, from the consideration of the latter circumstance, the man of sensibility will never pass Corwen without contributing a small gratuity to this dutiful daughter of affliction. I presented her with a small piece of silver on the occasion, and we soon learnt the happiness this unexpected event produced was not confined to herself. The generosity of this simple people appeared in this, as in many other instances, of too liberal a nature, to be confined within the narrow limits of self. The joy of the unadulterated Welsh character is the joy of *social participation*; the harper, who had been playing for us during the hour of supper, was now enlisted in the service of Magdalene; her young acquaintance in the town, and the servants of the house were invited to the feast; the mistress of the house, entering into the spirit of the occasion, contributed her mite also; the merry dance and chearing *cwrru* went round to an advanced hour, and we had the pleasure of witnessing a large portion of inoffensive mirth, produced by an inconsiderable gratuity.

Early in the morning we were awaked before we wished by a number of voices singing; the cause of this unwelcome serenade, we found, was a congregation of Dissenters assembled in a chapel opposite the inn, before they went to their respective employments, to pray for the prosperity of their country, and supplicate the Divine Being for a speedy restoration of peace among the ambitious and contending powers of Europe. This matin service was performed for this patriotic purpose at the same hour once a week. There was something so truly philanthropic in this work of supererogation, as some might be inclined to term it, that, however we might differ in some points from this people, this called loudly for imitation, and we could not help furnishing our quota of approbation.

Mr. Evans animadverts on some mistakes committed by late travellers; and he defends Gyraldus from the charge of being an unfaithful topographer:

“Entering the pleasing vale of Colwyn, (he says) we came to the source of the river Llyn y Cader. On our left was Llyn y Dywar-chen, or the Lake of the Sod; celebrated by Gyraldus for its *Insula erratica*, or wandering island. He says, “it is set in motion by the winds towards the shore, and sometimes rejoins its native banks: that cattle have been surprized on it by a contrary gale, and carried a short voyage from the shore.” Gyraldus has been considered as an unfaithful

unfaithful topographer; and this, amidst a variety of others, has been one of the errors set in array against him. It is with pleasure I assert, that the fact corroborates the statement of his always lively, and often accurate pen. It is a piece of land, which consists of turf and peat, torn off by some convulsion, and kept compact by the thick entangling roots that abound in this species of soil. It is of an irregular shape, about 30 feet long.*

If this loose floating piece of land be the *Insula Erratica* of Gyraldus, it probably was considerably larger in his time. Mr. Evans's account is doubtless good evidence in favour of that writer.

In describing the scenes before him, the author delights to conduct his reader into times of old; and perhaps no country affords fairer or more frequent opportunities of indulging such a propensity. In this particular, indeed, his book is very entertaining; and Mr. Evans appears to be well studied in the history and antiquities of this part of our island. The accounts, which are interspersed in his tour, exhibit a natural and interesting picture of the manners of the Welsh, during the time of their struggles to maintain their independance against their encroaching and more powerful neighbours.

Mr. Evans remarks, in drawing the character of the present inhabitants of North Wales, that 'refinement has not yet deadened their natural feelings, nor produced that apathy of behaviour which prevails among a more polished people. The fondness they evince for their country, and tenacious adherence to their native language, are not more remarkable than their singular attachment for each other.'—He considers their knowledge and practice in husbandry as very indifferent: but their conduct towards each other, at the season of Harvest, is kind and generous:

† In consequence of the poverty of the soil and state of husbandry, the harvest is very late; and frequently, from the uncertain state of the weather, a difficulty occurs of procuring the scanty crops upon which their existence depends. It often happens, that the strength of hands is not adequate to the labour, and a poor farmer is in danger of being ruined. But there is a natural sympathy amongst the Welsh, that provides for this adverse circumstance. Sensible of the evil arising from a scanty crop badly housed, they form societies of assistance, called *Cymmorthëan Cynhauaf*. As soon as one or two farmers have finished their own, or what portion is ready, they immediately repair, with their servants and horses, to assist their backward neighbour. This they do without any other fee or reward than their maintenance, and the consciousness that arises from the performance of an act of brotherly kindness. We have seen numbers engaged in this amiable occupation, and the pleasure they felt might be deduced from their clamorous exultation. If the sky lowers, and gathering clouds forbode a storm, likely to mar their friendly intentions, the noise increases, exertion is redoubled, and they seem more anxious to

to secure their neighbour's produce than their own. The desirable end accomplished, they return with shouting to the house, where, congratulating the farmer's good fortune, they express their mutual happiness in acts of cheering festivity.

'It was not till I had witnessed these scenes of philadelphic labours, that I fully understood the elegant allusion of the prophet, when speaking of the pleasures of the favoured people of God:—"They joy before thee, according to the joy in harvest." Isai. ix. 3.'

Mr. Evans has given very little more than the names of the botanical productions which he found in his peregrinations; reserving, we imagine, farther particulars for his proposed work. He remarks of the *Artemisia Absinthium*, which grows in abundance by the road side, that 'it is used by the country people instead of hops, and has the peculiar property of destroying acescency in beer grown hard for want of them.'

In the last letter, the author has given a short dissertation on Welsh poetry. His general opinions respecting this language are consonant with those of Mr. Bingley*, but he enters still more slightly into the subject. He is warm in the praise of Welsh; which, he says, (like Mr. B.) 'unites the expressive majesty of the Greek, with the harmonious softness of the Italian; and it is therefore particularly adapted for poetical expression.'—The frequent gutturals, the repetition of R, and the assemblage of broad sounding vowels and diphthongs, render it capable of displaying one of the chief beauties of poetry, viz. the sound corresponding with the sense; thus, on Thunder,

"Tân e dwr yn ymw riaw
Yw'r taranau dreigiau draw."

* The roaring thunder, dreadful in its ire,
Is water warring with aerial fire.'

Yet, as a proof that it is capable of expressing a great degree of softness, we are recommended to take the following on the harp;

"Maç mil o leisian meluson
Mal mel o hyd ym mola fhon."

* Within the concave of the womb is found,
The magic scale of soul-enchancing sound.'

The letter also contains some entertaining particulars respecting the Bards and Minstrels, and the peculiar manners and customs of the natives.

We conclude our account of this volume with adding, though perhaps unnecessarily, that we have received much pleasure from the perusal of it.

* See the preceding article.

ART. XIII. *Introduction to the New Testament.* By John David Michaelis, late Professor in the University of Göttingen, &c. Translated from the Fourth Edition of the German, and considerably augmented with Notes, and a Dissertation on the Origin and Composition of the Three first Gospels. By Herbert Marsh, B.D. F.R.S. Fellow of St. John's College, Cambridge. Vols. III. and IV. 8vo. 1l. 1s. Boards. Rivingtons. 1801.

FEW works, either in sacred or profane literature, occupy a larger space than those which have been written with the view of explaining or illustrating the sacred text; and few have less answered the purpose for which they were designed. At the time when Christianity made its appearance in Judea, it was a fashion among the Jews to allegorize every part of the Old Testament: in every precept they found a mystery, and in every fact they discovered a typical reference to the Messiah. This mode of explaining the sacred writings passed from the Synagogue to the Christian Church. It was first adopted by the Gnostics: but the most orthodox among the Fathers did not wholly reject it; and it was particularly prevalent in the Alexandrine school. Origen, in his earlier writings, carried it to an excess; in his latter works, he was more sparing of it: but he had more imitators of his earlier than of his latter style of composition. Chrysostom, in general, avoided allegory; his Homilies on St. Matthew, on St. John, and on the Acts of the Apostles, are excellent: but the first constitute his masterpiece. The severest critics praise the commentary of Theodoret of Cyr on the Epistles of St. Paul:—after him, the Greek Fathers, including John of Damascus, (with whom they close) do little more than copy Chrysostom. As an interpreter of holy writ, Jerom stands decidedly the first of the Latin Fathers: but his epistles are more valuable than his commentaries; and he is happier in his explanation of the Old, than in his illustration of the New Testament. Augustin's entire ignorance of the Hebrew, and his very slight knowledge of the Greek language, prevented him from rendering that service to the sacred text, which might otherwise have been expected from his great abilities:—but his merit should not be under-rated; his writings abound with pages of great good sense, subtlety, and eloquence. From his time to the revival of letters, the Latin Church produced a numerous list of commentators on the sacred writings; and though the works of few of them are now read, in their day they had their admirers, and several of them may even yet be consulted with advantage.

At the head of modern commentators, we must place Erasmus. In critical acumen, he has had very few equals; and, notwithstanding the great advances which, since his time, have been

been made in every branch of sacred literature, he is still read with delight and profit. His example was followed by a number of excellent writers : among whose productions, the notes of Vatable on the Old Testament, and those of Beza on the New, deserve particular praise. In explaining the literal meaning and peculiarities of the text, Grotius has not yet been surpassed.—Honorable mention might also be made, in this place, of the labors of many more modern authors ; among whom several of our countrymen have displayed conspicuous merit : but the work now under our consideration seems to confine our attention to the biblical writers of Germany. Throughout the whole of the last century, that country abounded with men of eminence, in every branch of biblical learning. The *Commercium Epistolicum* of La Croze, a publication not sufficiently known in England, presents a pleasing picture of their ardour for study, of their wishes to disseminate knowledge, and of the candor and liberality of their sentiments. About the period at which that set of critics were moving from the stage of life, Michaelis was rapidly advancing into notice. He was born in 1717, and died in 1791 ; and the whole of his life was dedicated to literature. We have seen a list of more than 30 different works, which were the fruits of his study, and which gained for him the highest degree of celebrity : but those by which he is most known in this country are his *Note et Epimetra* to Dr. Lowth's celebrated *Praelectiones de sacrâ poesi Hebraeorum*, and the subsequent publication, of which the third and fourth volumes are now before us*.

The first chapter of Vol. III. contains Observations on the Name and Number of the Canonical Gospels. The Professor observes that the word *ευαγγελιον* always signifies, in the New Testament, the joyful intelligence of the Advent of the Messiah ; and, in opposition to those who have found mystical reasons for there being neither more nor fewer than four Gospels, he observes that, as far as human knowledge reaches, the circumstance of their amounting to that number can be ascribed to no other cause than mere accident.

Chapter II. treats of the harmony of the four Gospels, and is divided into eight sections. In the first, the author discusses the apparent contradictions of the Gospels ; in the second, the objections made to the Evangelists, on their apparent contradictions with respect to the order of time ; in the third, the rules to be observed in making a Harmony of the Gospels ; in the fourth, the inferences to be deduced from the supposition

* For an account of the preceding volumes, see M. R. vols. xvii. and xviii. N. S.

that real contradictions actually exist in the four Gospels: in the fifth, he professes to shew the various degrees of importance which may be attached to the different kinds of those contradictions: the sixth contains an account of the principal Harmonies; in the seventh, he proposes his own system for the Harmony of the Gospels; and in the eighth he discusses, at large, the account given by St. Matthew, St. Mark, and St. Luke, of the events which took place on two 'very actively-employed' Sabbaths* in the life of Christ, which occasion the greatest difficulty in arranging the gospel history according to the order of time. None of these topics are exhausted by the author: but, on each of them, he makes a number of miscellaneous observations, which are always sensible and judicious, and are generally important. He admits, 'that the accounts delivered by the several Evangelists do not at all times perfectly coincide:' but he contends that

'However dangerous these contradictions may appear to many friends of the Christian cause, and however forcibly they may have been applied by its enemies, the disadvantage, which arises from them, is by no means so great as is supposed, since they prove, what is of great importance, that the Evangelists did not write in concert. If the three first Evangelists had entered into a combination, with a view of imposing a fiction on the world, they would have avoided even the smallest appearance of disagreement; and, if the miraculous events, which they had recorded, had been empty fables, it is probable that St. John, who had read their Gospels, before he wrote his own, would have taken care not to admit the least deviation from the writings of his predecessors, in order that the fraud might have been less easily detected.'

In a farther part of this chapter, the Professor observes that

'If it could be shewn that real contradictions, that is such as are wholly incapable of a reconciliation, exist in the four Gospels, the only inference to be deduced is, that the writers were not infallible, or in other words not inspired by the Deity; but that we are by no means warranted to conclude, because the historians vary in their accounts, that the history itself is a forgery.'

In the truth of these remarks we entirely acquiesce. It *might* be advantageous to Christianity to have it proved that, in the largest sense of the word, the Evangelists *were* divinely inspired: but, should it be fully proved that they were *not* inspired, even in the most limited sense of the word, so that the works of the Evangelists would be intitled to no greater degree of credit than we allow to the histories of Xenophon, Livy, or Froissart, still there would be sufficient ground for our belief in the history of Christ.—We were much pleased with the good

* 'The day of the Sermon on the Mount,' and 'the day of the Sermon in parables.'

sense and ingenuity of the following observation, on one of the subjects which have been found most perplexing by the writers of Harmonics :

‘ I would not have it understood, that the supposition of an event's having happened more than once, where different periods are assigned to it by different Evangelists, is in no case whatsoever admissible. But then it must not be an event of the most extraordinary kind, nor attended in every instance by the same minute circumstances. For instance, since various persons at various times may have offered themselves to be the disciples of Christ, induced either by the high expectations, which were formed of his character, or by the interested motive of receiving from him their daily support, to whom the answer ‘ Foxes have holes, and the birds of the air have nests, but the Son of Man has not where to lay his head ’ is well adapted, it is not improbable that this answer was given on more than one occasion. When St. Matthew therefore, ch. viii. 19, 20. relates this answer as given by Christ at the lake of Gennesaret, and St. Luke, ch. ix. 57, 58. as given during the journey through Samaria toward Jerusalem, we must conclude that the two Evangelists here relate two different things. This is however attended with the following difficulty, that both St. Matthew and St. Luke, immediately after the answer above quoted, agree likewise in another answer given by Christ to a young man, who was going to bury his father. This case is so extraordinary that I cannot suppose it to have happened twice; and I can account for the difficulty in no other manner, than by supposing that the two Evangelists introduced, on two different occasions, the conversation of Christ with this disciple, because each occasion suggested its introduction. They relate in what manner Christ rejected, or invited disciples, or put them to the test, though the instances, which they produce in the same place, happened at times distant from each other.’

In several parts of the chapter, Prof. Michaelis observes that real contradictions between the Evangelists prove nothing more than that they were not divinely inspired. We admit this position, in the sense which the author attaches to it: but we wish that he had given us an exact definition of what he understands by the word *inspiration*, because it is susceptible of a great variety of different meanings. If it imply that the Evangelists were inspired in each individual word written by them, the position of Michaelis is true, in its utmost extent:—but the inspiration of the Evangelists may be understood in a much more limited sense: it may be supposed that they were so far inspired as to relate, under the divine influence, whatever it was the will of Heaven that we should know through them, respecting the history and doctrine of Christ; and that thus far, but no farther, they were preserved by the particular favor of Providence from omission and error. This degree of inspiration may be deemed compatible with all the

contradictions in their writings, which have not yet been reconciled.

The Professor's account of the principal Harmonies appears to us imperfect. The Harmony, which he himself has proposed, is rather a table of contents of the histories of the Evangelists, with a general reference to the chronology of the events recorded by them, than an attempt to form a minute arrangement of the events in the order of time. To construct such an arrangement is, indeed, an arduous undertaking.—We agree with the annotator, in an observation made by him in one of the notes to this chapter, 'that the argument for St. Matthew's order, in general, rests unimpaired; and that hence we may infer, that those Harmonists who take St. Matthew for their guide, must meet with more success in their attempts to produce a chronological Harmony, than they who desert him.'

Those who wish to see the nature of a Gospel Harmony, and the difficulties attending it, cannot do better than study attentively the eighth section of the present chapter.—We copy a note by the translator, which gives at once a succinct and full view of the Harmonies of the Gospels;—a subject of great moment in Biblical literature:

'All the modern Harmonies of the four Gospels, of which we have above an hundred in various languages, may be divided into two classes: 1st, Harmonies, of which the authors have taken for granted, that all the facts recorded in all the four Gospels are arranged in chronological order, and 2dly Harmonies, of which the authors have admitted, that in one or more of the four Gospels chronological order has been more or less neglected. Osiander, or as he was called, in German, Hosmann, is at the head of the first class, Chemnitz at the head of the second. The Harmonies of the former kind are very similar to each other, because though the authors of them had to interweave the facts recorded in one Gospel with the facts recorded in another, yet, as they invariably retained the order which was observed in each Gospel, and consequently repeated whatever facts occurred in different places in different Gospels, as often as those facts presented themselves to the Harmonists in their progress through the Gospels, there was less room for material deviations in their plan and method. But in the Harmonies of the latter kind we meet with considerable variations, because, though the authors of them are unanimous in their principle, they are at variance in the application of it; and, though they agree in making transpositions, by which they distinguish themselves from the Harmonists of the first class, yet they do not always make the *same* transpositions. Some, for instance, have supposed, as Chemnitz, archbishop Newcome, and other Harmonists of this class have done, that St. Matthew has mostly neglected chronological order, while others, as Bengel and Bertling, have supposed, that he has in general retained it. Hence, though they have all the same object in view, namely, to make a chronological Harmony, or to arrange

arrange the events, which are recorded in the Gospels, as nearly as possible according to the order of the time, in which the events happened, they have adopted different modes of producing this effect. For in some Harmonies the order of St. Matthew is inverted and made subservient to that of St. Mark, while in other Harmonies St. Mark's order is inverted, and made subservient to that of St. Matthew. Some Harmonists again suppose, that *all* the Evangelists have neglected chronological order, while others make an exception in favour of one, or more of them, though the question, which of the Evangelists should be excepted, likewise affords matter of debate. And even those Harmonists, who agree as to the Gospel, or Gospels, in which transpositions should be made, differ in respect to the particular parts, where these transpositions ought to take place. Amid this variety of opinion, and amid the manifold arguments, by which each Harmonist has ingeniously defended his own particular plan, it is really difficult to discover a fixed and solid principle, by which the events recorded by the Evangelists may be restored to chronological order. For this reason, Griesbach in the Preface to his Synopsis, p. 5. (ed. 2.) says, 'Ingenue profiteor, lectorisque admonitos esse cupio, Harmoniam, quam proprie dicunt in hocce libello neutiquam esse querendam. Quamvis enim non ignorem, quantum laboris viri perdocti harmoniz secundum regulas a se conditas in ordinem redigendz impenderit, ego tamen exiguum utilitatem, ino nullam fere, quam non mea etiam Synopsis præstet, e minuta ista diligentia percipi posse arbitror; sed valde etiam dubito, an ex Evangelistarum libellis harmonica componi possit uarratio, veritati quoad chronologicam pericoparum dispositionem satis consentanea, et firmis fundamentis superstructa.' The title of this work is, *Synopsis Evangeliorum Matthæi, Marci, et Lucæ, una cum iis Joannis pericopis quæ historiam passionis et resurrectionis Jesu Christi complectuntur. Textum recensuit et selectam lectionis varietatem adjecit J. J. Griesbach, Editio secunda, emendatior et auctior. Halæ Saxonum, 1797. 8vo.* The chief purport of this Synopsis, is not to give a chronological series of events, but to represent in parallel columns all those sections, which are common to the Gospels of St. Matthew, St. Mark, and St. Luke; St. John's Gospel, with exception to the last part of it being omitted because the rest of it has so very little matter in common with the other three. And, to make as few transpositions as possible, St. Mark's order is generally retained, because it is the same with that of St. Luke, as far as relates to the facts which are common to all three. Those parts, which each Evangelist has peculiar to himself, are inserted in intermediate sections. The disposition of the whole work is very commodious, and I know of no Harmony, which affords so much assistance in the investigation of a subject, which has lately much engaged the attention of the German critics, and which will be particularly considered hereafter, namely, the origin of our three first Gospels, and the relation, which they bear each other.

'With respect to the question, whether there is a possibility of arranging in chronological order all the facts recorded in all the four Gospels, the greatest difficulty consists in the mode of arranging St. John's Gospel. For since, if we except the two last chapters, it

has

has so very little matter in common with the other three, every Harmonist, who inserts the whole of it, must divide it into a great number of small portions, and insert them, one in one place, another in another, in intervals between the sections of St. Matthew, St. Mark, and St. Luke, according to the time, to which such Harmonist supposes, that each of those portions belongs. But many, if not most, of these insertions are so arbitrary, and so destitute of every criterion, by which we might pronounce with certainty, that such an event recorded by St. John immediately followed this event, and immediately preceded that event, recorded by St. Matthew, St. Mark, or St. Luke, that though some of them may have been inserted according to the time, in which they have happened, we cannot be sure that even the greatest part of them have received in any Harmony an exact chronological position. The safest method therefore is to confine all harmonic arrangements to the Gospels of St. Matthew, St. Mark, and St. Luke, and to consider St. John's Gospel, with exception to the two last chapters, as a work unconnected with the other three. The question of chronological order will then be reduced to a smaller compass; and since the facts, which are common to the Gospels of St. Matthew, St. Mark, and St. Luke, are arranged by St. Mark and St. Luke in general in the same order, we have only to choose between their order (namely in the facts which are common to all three) on the one hand, and that of St. Matthew on the other. For whoever supposes, that all three have neglected chronological order, and yet attempts to compose an Harmony, in which the facts shall be chronologically disposed, engages in an undertaking, in which it is impossible to meet with success; since on this supposition there exists no criterion, by which the real succession of the events may be determined. Now it has been already shewn in Note 2. to Sect. ii. of this chapter, that an historian, who knows in what order the events, which he records, followed each other, and yet designedly inverts that order in his narrative, must be conscious to himself, that his plan is such, as will expose his readers to the danger of mistaking the succession of those events. On the other hand, if an historian, though accurately informed in respect to the events themselves, does not always know, in what order they followed each other, he cannot be charged with neglect, though his arrangement be not chronological, since the order of real succession, which may be justly expected from an historian, who knows it, cannot be expected from an historian, to whom it is not always known. Consequently, as St. Matthew was in general eye-witness to the facts, which he has recorded in common with St. Mark and St. Luke, but St. Mark and St. Luke were not, it is surely more reasonable to expect chronological order in the former than in the latter. It is true, that wherever St. Matthew differs in his arrangement from St. Mark or St. Luke, these two Evangelists agree in their arrangement with each other. But this agreement affords no proof that they have written in chronological order: for, though nothing but an adherence to the real succession of events could produce a uniformity of arrangement in the works of two historians, who had no connexion, either mediate or immediate with each other, yet if either the one copied from the other, or both of

them drew from a common source, their arrangement might be the same, and yet not chronological. Now that one of these two suppositions must be adopted in respect to St. Mark and St. Luke, the late critical investigations on this subject, which will be considered hereafter, have placed beyond a doubt. The conclusion, therefore, that St. Matthew's order is in general chronological rests unimpaired: and hence we may infer, that those Harmonists who take St. Matthew for their guide, must meet with more success in their attempts to produce a chronological Harmony, than they who desert him.'

In chapter III. the author summarily inquires how it happened that St. Matthew and St. Mark, and also St. Mark and St. Luke, have in several instances a remarkable verbal harmony, though the one did not copy from the writings of the other. This is a point of great curiosity and importance in the literature of the sacred text: but, as Mr. Marsh, in his note to this section, refers to his '*Dissertation on the origin of the three first Gospels,*' (subjoined to these volumes,) and as we propose to review that dissertation at some length, in a future article, we shall not enter on the discussion of it at present.—With this chapter, the author concludes his observations on the Gospels in general.

Chapter IV. contains an account of St. Matthew, and of the time at which he composed his Gospel. The Professor supposes that St. Matthew and Levi were different persons, and he inclines to think that the Gospel was written about the year 41. He discusses, much at length, and with great ability, the celebrated question of the original language of this composition; and he proves that it was the Hebrew, or more properly the Syro Chaldee dialect spoken at Jerusalem, in the time of the Apostles.—In the 9th section, he treats of the Hebrew Gospel used by the Nazarenes and Ebionites. This chapter abounds with curious learning; and the translator follows the author step by step, in his annotations. The Professor sums up the history of the Nazarene Gospel in the following words:

'The history of the Nazarene Gospel may be briefly summed up under the following heads:

1. Very few ecclesiastical writers have taken notice of this Gospel: at which we have no reason to be surprised as few of them understood Hebrew, and no translation of it had been made before that of Jerom. Besides, the copies of it were very scarce even in Palestine, for Jerom mentions it as an unusual book, which he found in the library of Cæsarea.

2. However, its name and character were not unknown; though it is difficult to determine, what the majority of Christians in the three first centuries thought of it, because Eusebius has expressed himself in ambiguous terms. In the fifth century most persons believed

lieved it to be the original of St. Matthew's Gospel: but whether they knew that it was interpolated, and distinguished the genuine text from its additions, we are not informed.

‘ 3. Ignatius does not mention the name of this Gospel: he has a passage indeed, which existed in this Gospel, but that passage, as I have already shewn, was inserted in the Nazarene Gospel from the Epistle of Ignatius, and not quoted by Ignatius from this Gospel.

‘ 4. It is quoted more than once by Origen, as ancient though not as scripture authority; for he considered it, probably on account of its interpolations, as a mere human composition, but he is far from speaking of it in terms of disrespect. What he thought of its genuine text, when separated from the interpolations, he has no where mentioned.

‘ 5. Eusebius refers it to the *αριθμομενα*, and places it in the same rank with the Epistle of St. James, the second Epistle of St. Peter, the second and third of St. John, the Epistle of St. Jude, and the Apocalypse.

‘ 6. Epiphanius describes the Nazarene Gospel, as St. Matthew's original: but he does not appear to have seen it himself, and therefore he probably followed the common opinion.

‘ 7. Jerom was well acquainted with it, and describes it as St. Matthew's original.’

In one of the notes to this section, the translator thus expresses himself respecting the authority of the first and second chapters of the Gospel of St. Matthew:

‘ The evidence of the Greek manuscripts therefore is decidedly in favour of the authenticity of the two first chapters of St. Matthew's Gospel. Equally decisive is the testimony of the ancient versions; for these chapters are contained in all of them. That in some few Latin manuscripts the genealogy is separated from the remaining part of the first chapter, and that St. Matthew's Gospel is made to begin with ch. i. 18. is a circumstance, which is not only much too trivial to be opposed to the weight of evidence on the other side, but at the furthest can affect only the genealogy, and not the *whole* of the two first chapters. In fact, such writers of Latin manuscripts, as wrote the genealogy apart from the rest of the Gospel, were actuated not by critical, but theological motives. They found difficulty in reconciling the genealogy in Matth. i. with that of Luke iii. and therefore wished to get rid of it. Consequently it is highly uncritical to take *their* manuscripts even into consideration. With respect to the quotations of ancient writers, which form the third kind of evidence, it is sufficient to observe, that both Clement of Alexandria, and Origen have quoted from the two chapters in question, without signifying any suspicion of their want of authenticity. And what is still more, even Celsus, the great enemy of the Christian religion in the second century, has quoted from them. See Griesbach's *Symbolæ criticæ*, Tom. II. p. 241. We must set therefore all the laws of criticism at defiance, if we assert that the *Greek* Gospel of St. Matthew, to which alone the preceding arguments relate, began with ch. iii. *οὐ δε ταις ημεραις αυτου.* That the Greek Gospel ever

began in this manner is in itself likewise incredible, since no writer, unless something had preceded, would say 'in those days.'

'On the other hand, however evident it may be, that the Greek Gospel of St. Matthew, from its very first existence, contained the two first chapters, yet, as this Gospel is a translation from the Hebrew (that is, Chaldee) of St. Matthew, it is still possible, that they were not contained in the original, that the original began, as Epiphanius says the Gospel used by the Ebionites began, with the words, 'it happened in the days of Herod the king, &c.' that the Greek translator prefixed a translation of some other Chaldee document-containing an account of Christ's birth, and that, in order to connect it with the commencement of his original, he altered 'the days of Herod' to 'those days.' All this is possible: but it would be a very difficult matter to render it probable. It appears indeed from the Dissertation on the origin of our three first Gospels, ch. xv. that before any of our canonical Gospels was composed, there existed an Hebrew (that is, Chaldee) narrative of Christ's transactions, which contained only so much matter, as is common to the three first Evangelists, and therefore did not contain what is related in Matth. i. ii. But then it is further shewn in the same chapter, that this document formed only the basis of St. Matthew's Gospel, and that the Evangelist himself made very considerable additions and improvements. There is no improbability therefore in the supposition, that the two first chapters were added by the Evangelist himself, especially since the Hebrew Gospel used by the Nazarenes really contained them, as appears from Notes 10. 11.: and there is great reason to believe that the Hebrew Gospel used by the Nazarenes approached much nearer to St. Matthew's genuine original, than that which was used by the Ebionites, since the Nazarenes were descendants of the first converts to Christianity, the Christians of Judæa being called *Nazarenes*, Acts xxiv. 5. while the Greek Christians were called *Χριστιανοί*, Acts xi. 26. Absolute certainty on this subject is indeed not to be obtained for want of sufficient data: but the same want of data makes it impossible to prove that St. Matthew was *not* the author of the chapters in question.—Among the various writers on this subject, no one has displayed more critical judgement than Professor Rau of Erlangen, in a short Latin dissertation published at Erlangen in 1793, entitled *Symbolæ ad questionem de authenticâ i. et ii. cap. Evangelii Matthæi discutiendam.*'

The whole of the 5th chapter is employed on St. Mark's Gospel; which Professor Michaelis seems to think was written in Rome, with the assistance and under the direction of St. Peter. Here we find the curious passage which follows:

'That St. Mark wrote his Gospel in Rome, and for the use of the Romans, is likewise the reason why he has omitted many particulars in the life of Christ, which are related by St. Matthew and St. Luke. The genealogy, for instance, though interesting to the Jews, was not so to the Romans: and the same may be said of Christ's nativity at Bethlehem, a name well known to the Jews, but probably unknown to the Romans. His total omission of Christ's
admirable

admirable sermon on the mount, which St. Matthew has given at full length, and St. Luke in short extracts, appears at first sight, to be rather extraordinary. But we must recollect that this sermon was in fact polemical, and immediately directed against the false morality of the Pharisees. To understand this sermon therefore, it is absolutely necessary to have a previous knowledge of the Pharisaic doctrines: but these doctrines were unknown to the Romans. The unlearned are not only incapable of comprehending this discourse, but are in danger without the assistance of a learned interpreter, of totally perverting its meaning. It is a known fact, that very erroneous moral doctrines have been deduced from it, and that these doctrines have been applied as objections to the Christian religion. It has been asserted; that Christ totally prohibited the administration of an oath, the repulse of violence, an appeal to a magistrate, or self-defence. For these reasons, St. Peter himself would hardly have delivered this discourse to the Romans: and for these reasons, St. Mark passed it over in silence. The same motive induced him to give in only a few words, ch. xii. 38—40. another discourse which Christ directed to the Pharisees, and which St. Matthew has delivered at full length.'

Michaelis supposes that St. Mark availed himself of several written documents in the composition of his Gospel, but that he made no use either of St. Matthew or St. Luke. That he wrote before and that his gospel was used by St. Luke, the author positively denies. The chapter is concluded by the following sentence:

'No writer of the New Testament has neglected elegance of expression, and purity of language, more than St. Mark. The word *poen*, occurs incessantly, and he abounds likewise with numerous and harsh Hebraisms. Yet his Gospel is very valuable, because it contains several important though short additions to the accounts given by St. Matthew. For instance, the answer of Christ, which St. Matthew has recorded, ch. xii. 48—50. would be thought very extraordinary, unless we knew what St. Mark has related, ch. iii. 21.: but from this passage we clearly perceive the reason of Christ's answer. Sometimes he has additions, which more clearly ascertain the time, in which the events happened, as in ch. iv. 35. vi. 1, 2. It is therefore unjust to suppose that St. Mark neglected the order of time more than the other Evangelists, and still more so, to reject his arrangement for that of St. Matthew or St. Luke, in places where the time is positively determined by St. Mark.'

Here we must suspend our analysis of these volumes, for the present. In our next Number, we propose to resume the consideration of them.

[To be continued.]

ART. XIV. *Elements of Chemistry*; comprehending all the most important Facts and Principles in the Works of Fourcroy and Chaptal: with the Addition of the more recent Chemical Discoveries which have been made known in Britain and on the Continent; and with a Variety of Facts and Views *which have never before been communicated to the World.* Intended for the Use, not only of those who study Chemistry, with those professional Purposes to which this Study is commonly referred, but also, for Farmers, Manufacturers, Dyers, and the other Artizans of the Chemical Arts in general, &c. By Robert Heron. 8vo. pp. 628. 12s. Boards. Longman and Rees. 1800.

FROM the preface to this volume, it appears that the author is much dissatisfied with the various elementary works that have hitherto been published, even by the most eminent chemists. He observes that 'in all former systems of chemistry,—except only that admirable treatise *the Philosophy of Chemistry* by Fourcroy,—there prevails an *unscientific confusion of arrangement*, exhibiting the different chemical substances, not so much in the order of system, as if they were taken up, one after another, out of a heap carelessly thrown on the floor of the Laboratory, or from the shelves in an Apothecary's shop.'—The Preface is replete with many similar censures on the writings of modern chemists; and even the chemical Lecturers do not escape the lash of Mr. Heron, who says (p. 10.) 'that the exhibitions at chemical Lectures are much like the slight of hand tricks of jugglers.'

An attack is also made on the authors of the different systems of chemistry, on account of neglect of style; and here, as well as after every other article of censure on others, this writer, with singular modesty, points out the superior merits of his own book and of himself. He remarks (p. 30.) 'that there exists not at present in English any work upon chemistry, in which the Student may find so much information within so little reading, and at so small an expence. This argument comes so directly home to mens' pockets and hearts, that to enlarge upon it, were needless.' He then concludes his Preface in the following manner: 'inaccuracies in language, errors in facts, vanities of theory, deficiencies and redundancies, sometimes disorder—and sometimes pedantry—of arrangement, will no doubt be easily discovered in the course of this work. Yet if its judges were to be only the *candid and judicious*; perhaps, the author would have little reason to dread extreme severity in the sentence.'

We are very sorry that we cannot agree with this writer in the good opinion which he so evidently entertains of his own performance. When a work is introduced to the world with
a title

a title and preface full of so much pretension as those now before us, the public have a most indisputable right to expect something above mediocrity at least; and an author who *thus* comes forwards must also expect to be weighed in the same balance, which he has employed with so little diffidence and lenity in judging the merits of others. We shall not, however, scrutinize this work with extreme minuteness and severity, but shall make only a few remarks.—The book undoubtedly contains a great portion of matter, but it is brought together in a more negligent manner of compilation than we have seen in any of the works to which Mr. Heron so liberally ascribes this defect; and while he condemns the style of other chemical writers, his own appears peculiarly turgid, affected, and confused.—We perceive that great liberties have been taken with nomenclature. *Light* (for example) is pedantically called *Lumen*: *Ceylonica* is employed for *Zirconia*; and we also find the terms *Phosphor*, *Muria*, *Borate*, *Fluore*, *Silice*, and *Strontiana*. Without entering into any discussion to shew the impropriety and little necessity of these alterations, we must observe that, although great and eminent chemists (such as Scheele, Bergman, Klaproth, and Kirwan,) may be allowed to alter and fabricate names, even sometimes more than cool sense and sound judgment can deem requisite, yet the same latitude never can nor will be granted to every compiler of what are called systems of chemistry.

In p. 105. *Pyrites* are defined as compound *Stony* bodies.—The *Arrow headed Selenites* (p. 184.) are mentioned as peculiar crystals, consisting of two sextine triangles joined together; yet every Mineralogist knows that these are only fragments of lenticular crystals, which have adhered to each other.—In pages 242 and 245, *Adamantina* and *Sydnæia* are described as primitive *Earths*, although both have long been rejected as such. (Vide Klaproth's Beiträge 1795, p. 67. Phil. Trans. 1798, p. 110; and Babington's System of Mineralogy, pp. 113 and 115.) This error is the more remarkable, because Dr. Babington's book is quoted in p. 6 of the Preface.—In p. 263, the properties of *Tungstate of Lime* and *Wolfram* are strangely confounded under the name of the former; although, in the very same page, mention is made of the well-known experiments of Messrs. D'Elhuyar;—and in p. 508, the *gaseous Oxide of Azote*, or Nitrous Oxide, is confounded with *Nitrous Gas*.

We shall not follow the author through certain flights of fancy, such as that which induces him to believe that *Lime* is *concrete Oxygen*, &c. &c.—the preceding remarks must sufficiently prove that this work is of a very flimsy texture. The quotation, *Risum teneatis Amici?* which the author has so

apparently applied to Count Rumford, might justly be retorted, did not the same great poet furnish some lines still more applicable;

“*Quid dignum tanto feret hic promissor biatu ?
Parturient Montes, nascetur ridiculus Mus.*”

ART. XV. *Elementary Treatises on the Fundamental Principles of Practical Mathematics.* For the Use of Students. By Samuel Lord Bishop of Rochester. 8vo. pp. 400. 8s. 6d. Boards. Printed at Oxford, at the Clarendon Press. London, Elmsley. 1801.

THE learned author of these elementary treatises is already well known to the mathematical world, and principally by his complete edition of the works of the great Newton.—The plan of the present publication will be understood from the words of the preface:

‘We begin so low as with the principles of *Fractional Arithmetic*, Vulgar and Decimal, the business of Fractions being usually of the greatest embarrassment to a learner in the beginning of his Mathematical studies, not from the difficulty of the operations, but by reason of the obscurity in which the writers upon this subject leave the principles involved, upon which the rules of operation depend. Our method is, in the treatise which is placed first, to deduce these principles from the general properties of numbers delivered by Euclid in the seventh and two following books of the *Elements*; and the treatise ends with the doctrine of Circulating Decimals, and the extraction of the Square Root of Fractions and Mixed Numbers. This introduces the learner to the doctrine of Infinite Approximations, and even brings him acquainted with Converging Series, in the instance of one of the simplest form. And as the examples of the extraction of the square root are given in calculations of the sides of Polygons inscribed in circles, the foundation is laid, in the end of this treatise upon Fractional Arithmetic, of the Construction of the Trigonometrical Canon.

‘From the Arithmetic of Fractions we proceed to *Trigonometry*, Plane and Spherical; the Elements of which we deliver in three books; those of Plane Trigonometry in the first; those of Spherical in the second and the third—the second, containing the general properties of Spherical Triangles; the third, the Trigonometry of the Sphere, that is, the resolutions of the several cases, as they are called, by the Trigonometrical Canon.’—

‘From Trigonometry we proceed to the *Projection of the Sphere*, a subject, that has never yet been handled with the accuracy it deserves, both for its curiosity and its use. Considered in its utmost extent, it would be a branch of Linear Perspective. But we confine ourselves to the three principal Projections, the Orthographic, the Stereographic, and the Gnomonic, which we treat in four Books; the first, containing the principal properties of Cylindric Sections, which are the

the basis of the Orthographic Projection; the second, the Orthographic Projection; the third, the Stereographic; the fourth, the Gnomonic, with an Appendix, shewing the application of the Gnomonic Projection to the construction of Sun-Dials. We conceive, at the same time, that we have treated this subject of Projection in a manner that goes to the bottom of it, brings many curious properties to light, not observed by former writers, and clears up many difficulties.'

Although first published, this work is the last in order of three volumes of elementary Geometry, which the Bishop will send forth from the Clarendon press. Vol. I. is destined to contain the first twelve books of Euclid, in Latin, with the author's corrections:—the second will consist of Euclid's data; a book on the properties of the sphere, comprehending the substance of the whole of the first book of Theodosius, with as much of the 2d & 3d as may be necessary for the demonstrations in Spherical Trigonometry and the projections, and for understanding the phenomena of the celestial sphere; with Archimedes on the dimension of the circle; and Dr. Keil's elegant treatise on the nature and use of logarithms. The Right Rev. author informs us that, although frequent reference is made to the unpublished volumes, he had good reason for not delaying the appearance of the present treatises: but what is next offered as an apology for this volume appearing in English, while the remaining are composed in Latin, we cannot admit as such: since it would not have needed an immense sacrifice of time, to have removed the blemish which the entire work must now possess. We are happy, however, in finding the learned Bishop strengthening by his authority the reasonable opinion of D'Alembert, that books of science ought to be composed in Latin. The Latin language would fulfill, with respect to communication, all the purposes of a conventional tongue.

The plan of study, which the preface then proceeds to recommend, does not meet our entire approbation. If the student wishes to be an erudite mathematician, and to read for the gratification of curiosity, then he must peruse the works mentioned by the Bishop, with many more; and the order recommended is a very good one:—but, if he should desire to study the mathematics in their application to mechanics, physical astronomy, &c. then he must forego the examination of those methods which are not essential to the investigation of truth, for that of the compendious methods invented and improved by modern mathematicians. "Art is long, and life is short:" we cannot grasp every thing: science, in its progress, continually throws aside the treatises by which it advanced; and in a few years, the *Principia* of Newton will be viewed merely as a monument of the mighty genius by which it was composed.

Having

Having laid down the course of study to be pursued by the young mathematician, the Bishop thus concludes his preface :

‘ From this period we leave the Student to the direction of his own taste and genius. The Elementary knowledge, and the Practical habits with which we have furnished him, will enable him to make his own way in any branch of Mathematics pure or mixed, to which his inclination or his pursuits may lead him. Whatever belongs to such Elementary Institution, we well know also, is that which the University of OXFORD is at all times anxious to offer to her Sons, considering Mathematical knowledge as a distinguished branch (but as a branch only) of that general literature, without which the character of the Scholar is never complete ; and thinking still further, that even to those who are to receive the high commission of *Stewards of the Mysteries of God*, a due portion of this knowledge, in connection with the other studies requisite for the profession of *Theology*, (but not otherwise than in such connection) must ever be an acquirement of the greatest use and importance.’

The first treatise, as we have already mentioned, contains the arithmetic of fractions ; and though, in some instances, we are of opinion that more compendious methods of deduction might have been used, yet the doctrine of fractions is laid down with much accuracy and perspicuity ; especially that part which relates to decimal fractions and circulating decimals.—Towards the end of this division, the R. R. author shews how to express the length of the chord of a quadrantal arc, of an equilateral triangle inscribed in a circle, of the chord of an arc of 30° , of the sides of equilateral pentagons and pentedécagons inscribed in circles, &c.

The next tract relates to Plane Trigonometry ; and here is introduced that which has injudiciously been omitted in most treatises, the method of determining the chord of the supplement of a multiple arc in terms of the chord of the supplement of the simple arc : whence the author afterward shews how to deduce the equations $x^2 - 2$, $x^3 - 3x$.—and $x^4 - 4x^2 + 2$, &c. which were first discovered by Vieta.—This portion of the work contains also many useful propositions, very clearly explained ; and a method of calculating the line of arc $1'$, extracted from the Trigonometry of Nikiten and Souvoroff. In treating of the quadrature of the circle, Bp. Horsley remarks, among other judicious observations, that the series given by

Newton for deducing the sine of an arc z , viz : $z - \frac{z^3}{1.2.3} +$

$\frac{z^5}{1.2.3.4.5}$, &c. does not give the sine to great accuracy except the arc z be small :—this is true : but it is so well known by all mathematicians, that the author seems to have created an
erroneous

erroneous notion for the sake of correcting it. For calculating the sine of 1° and $30'$, however, the series $z = \frac{z^3}{1 \cdot 2 \cdot 3}$, &c. is sufficiently converging; and then, from this formula,

$$\text{Sin. } (a + 2a') = \text{sin. } (a + a') + \text{sin. } (a + a') - \text{sin. } a - \text{sin. } (a + a') \\ \left(2 \sin. \frac{a'}{2} \right)^2$$

we have, putting $a = 0^\circ$, $a = 1^\circ$, $a = 2^\circ$, $a' = 1^\circ$, &c.

$$\text{Sin. } 2^\circ = \text{sin. } 1^\circ + (\text{sin. } 1^\circ - \text{sin. } 0^\circ) - \text{sin. } 1^\circ (2 \sin. 30')^2$$

$$\text{Sin. } 3^\circ = \text{sin. } 2^\circ + (\text{sin. } 2^\circ - \text{sin. } 1^\circ) - \text{sin. } 2^\circ (2 \sin. 30')^2$$

$$\text{Sin. } 4^\circ, \text{ \&c.}$$

and for large arcs, use this theorem :

$$\text{Sin. } (60 + a) = \text{sin. } (60 - a) + \text{sin. } a.$$

Book 2d relates to Spherical Trigonometry, and differs in its order and method from the generality of treatises. In the beginning, a definition seems to be deficient, by which a spherical angle should be made to be the same as the angle formed by the tangents to the two arcs, at their point of intersection.

In the appendix to the Trigonometry of the Sphere, the Bishop adds the solutions of two theorems rarely to be found in any late author; and of these theorems he thus speaks :

'It is uncertain to whom the invention of these two noble Theorems is to be ascribed. The first is not found, as far as I know, in any writer older than Menelaus, nor the second in any older than Ptolemy. The two made the whole of Ptolemy's Spherical Trigonometry. They are still of great importance; for, as they are easy to be remembered, and the solutions of all the cases, except those two, when three sides are given, to find the angles, or the three angles, to find the sides, are easily derived from them; they may be of use when a table of the cases is not at hand.'

The next part of the work treats on the Projections of the Sphere, divided into four books;—1. on Cylindric Sections; 2. on Orthographic Projection; 3. on Stereographic; 4. on Gnomonic. Great ability is here displayed, and there are many passages which we should be desirous of quoting: but the following scholion in the 3d book can alone be conveniently extracted :

'These two principal Projections of the Sphere, the Orthographic and the Stereographic, have each their peculiar advantages and their peculiar defects. But, upon the whole, the Stereographic is far the best fitted for general use.

'It is an advantage of the Orthographic, that the whole is limited by the circumference of the primitive circle. But this is attended with a great inconvenience, that the parts near the circumference are excessively fore-shortened.

'In

* In the Stereographic, it is a very great disadvantage, that the regions near the eye go off to infinite distances. There is in some cases a remedy for this; namely, to make two distinct projections of the opposite hemispheres, placing the eye alternately, first in one, then in the opposite pole of the primitive. This however is a remedy which all cases do not admit. And the expansion of the circumocular parts, in projection, is often very inconvenient. But the fore-shortening of the marginal parts in the Orthographic is, in all cases, without remedy.

* The great imperfection of the Orthographic is, that every thing in the projection has a double meaning. A single point in the projection represents two on the surface of the sphere, and every circle, and every ellipsis two circles. Whereas in the Stereographic, every original has its distinct image, and every image its distinct original. So that one thing cannot be confounded with another. In the Orthographic, many circles are projected upon ellipses; in the Stereographic, all upon right lines or circles. In the Stereographic, projected angles are equal to their originals, on the surface of the sphere; which obtains in the Orthographic in particular cases only. The Stereographic therefore is of universal use in the Practical Geometry of the Sphere; the use of the Orthographic is confined to some particular problems.

* The ancient astronomers made much use of an Orthographic Projection of the Celestial Sphere upon the plane of the colure of the solstices. This they called the Analemma. They chose the colure of the solstices for the plane of projection, because many of the principal circles upon this plane, fall upon right lines; namely, the equator, and all its parallels; the ecliptic, and all its parallels; the colure of the equinoxes, and all its parallels; and the horizon, and all its parallels, if the Projection be made for that instant of time, at any given place, when \odot or \sphericalangle culminate.

* The execution of the Orthographic Projection follows so immediately from the theory laid down, that it would be abuse of time and labour to go about to detail it in distinct Problems. In the Stereographic, it may be useful briefly to propound the Problems in the proper order, and give the solution of each in the most general case. The most general cases will be sufficient, for the whole subject is so very easy, that no one who possesses the principles, can be at a loss to deduce for himself the compendia of operation, which particular cases may afford.*

The last tract in this collection relates to the Figure of the Earth, as deducible from observation. The principle on which the solution of the problem is made to depend is, that similar arcs of an ellipse, so small as to differ insensibly from circular arcs, are as radii of curvature: the radius of curvature in the ellipse, being as the cube of the diameter, conjugate to that which passes through the point of osculation;—which property is a consequence of the 18th proposition of the 5th book of Hamilton's Conics.

If it be the intention of the University of Oxford, as we have heard, to introduce the study of mathematics into their system of Education, it may now with propriety and benefit to itself testify its gratitude towards a learned and distinguished member, by employing the present treatise as a book of Lecture and reference;—a treatise which, in the words of the Preface, may be truly said to be ‘plain enough for the learner, and adapted at the same time to the taste of the scholar.’

ART. XVI. *Archæologia*: or, Miscellaneous Tracts relating to Antiquity; published by the Society of Antiquaries of London. Vol. XIII.* 4to. pp. 435. 1l. 1s. 6d. Boards. White, Bickerstaff, &c. 1800.

THIS volume opens with a letter to the President from the Abbé Mann, intended principally as an expression of gratitude and respect, for the favour which the Abbé had received in being admitted an honorary member of this learned Society, but giving also an account of what is supposed to have been a *Roman Camp, in Westphalia*. From the number of *tumuli*, or barrows placed on it, however, the ground rather appears to have been a field of battle; and though the description is amusing, it is not very satisfactory. At some distance, is another spot which bears a greater resemblance to a camp: but all is involved in obscurity.

The article which follows may prove more interesting: it consists of *Observations on Cecily, Duchess of York*, daughter of Ralph de Nevil, Earl of Westmoreland and of Richmond;—is communicated by the Rev. Mark Noble. This Lady’s mother was Joan, daughter of the Duke of Lancaster by his last Duchess, but born before marriage, and consequently illegitimate. Few persons, as it is here observed, have lived to see such great revolutions in their family as were witnessed by this Duchess. ‘She saw her husband, when just ascending the steps of the throne, by his rashness, killed in battle, and his head, separated from his body, in derision crowned with a paper diadem. She lived in the reigns of five sovereigns; she saw the crown of France wrested from the infant brow of king Henry VI., and she saw him deprived of that of England, restored, again dethroned, and his innocent blood cruelly spilt. She saw her son, king Edward IV. crowned, dethroned, restored, and cut off by his intemperance at an early age. She saw her grandson, king Edward V., on the throne, but de-

* See M. Rev. N. S. vol. xxiv. p. 298. and 388. for an account of Vol. XII.

prived of his sceptre, imprisoned, and murdered, by whom, and when, perhaps she never knew. She saw her youngest son, king Richard III., usurp the regal honours, and lose them soon after, with his life, when not more than thirty-two, or at the most thirty-five years of age; and finally, she saw the enemy of her family, who had vanquished him, proclaimed by the name of king Henry VII.' It should be added that, though 'she saw the crown go to an illegitimate stem of the Lancastrian line,' it might be some satisfaction to her to have it settled in her issue by the marriage of king Henry VII., with her eldest grand-daughter, Elizabeth, the heir of king Edward IV.; and she is said also to have seen several children of this union:—but it must have been painful to remark the hatred towards her house, which Henry conceived and cherished. However, it is observed, 'Cecily's venerable age and virtues prevented the royal miser from stripping her of the rich dower she possessed.' Berkhamstead castle, Herts, of which scarcely a vestige now remains, was her favourite residence.—Mr. Noble concludes by saying, 'these are the observations that have occurred to me in contemplating the eventful life of Cecily, Duchess of York, from whom all the succeeding sovereigns of England are descended. It was the period of "illustrious unfortunates," owing to the constant revolutions that followed fast on each other. Wretchedness marked the fate of the Plantagenets and the Nevils, alike remembered for their ambition and their crimes. The de la Poles were the only family of that time who rose from trade to splendour, and it even exceeded the Nevils in dignity, in power, and in misfortunes.'

Mr. Noble also communicates the two short articles which follow; one exhibiting a gold medal struck by king Charles I. on the birth of prince Charles, the motto, *reddat avos*, and in fine preservation; the other a gold coin, probably struck at York, and of the value of three shillings:—both are considered as uniques, and deemed curious.

A complete List of the Royal Navy of England in 1599, extracted from an original Manuscript in the Possession of Dr. Leith of Greenwich, and exhibited to the Society, by William Latham, Esq.—Here is a long catalogue of ships and artillery; and the reader will probably find himself puzzled amid *sakers, mynions, falcons, portpeeceballs, fowler-halls, curtalls, &c.* It is, however, a curiosity, and serves to illustrate the vast improvements and attainments which have, of later years, been made in nautical affairs.

In our account of the xiith volume of this work, particular notice was taken of a dissertation on the Anglo-Norman poets,

of the twelfth century, by the Abbé de la Rue. Another letter from this Gentleman is now translated and communicated by Francis Douce, Esq. relative to *the Life and Writings of Mary, an Anglo-Norman Poetess of the 13th Century*.—Very little is known of this Lady's personal history, and it is quite uncertain in what province of France she was born: probably, Normandy or Bretagne. In the Abbé's opinion, however, she may with great propriety be regarded as the Sappho of her age. 'I am ignorant, (he adds,) if she had much self-love, but I doubt very much whether, in taking up her pen, she seriously thought about posterity; it should rather seem that she was solicitous to be personally known only at the time she lived in. The silence or the modesty of the Lady has contributed, in a great degree, to conceal from us the names of those illustrious persons whose patronage her talents deserved. I shall endeavour to find out her Mécèneses.' The fruit of this search is, that he fixes on king Henry III. and William Longsword, natural son of Henry II., created Earl of Salisbury, as two of Mary's protectors. Much attention and ingenuity are displayed on the subject: but we can only add that her works, which remain in manuscript in the British Museum, &c. consist of *Lays, Fables, and a Tale of St. Patrick's Purgatory*.—The Abbé appears to be very zealous in the cause, and bestows the highest encomiums on the accuracy, skill, taste, and sensibility of this Lady; who, he says, 'always speaks to the soul, calls forth all its feelings, and very frequently throws it into the utmost consternation.'

The Rev. John Brand (the Secretary) gives an *Account of Inscriptions discovered on the Walls of an Apartment in the Tower of London*.—A room, antiently the place of confinement for state-prisoners, has been lately converted to a different use; and in consequence of this alteration, a number of inscriptions have been discovered on the walls, probably made with nails, and undoubted autographs of the unfortunate tenants of this once dreary mansion. The first here mentioned is a curious piece of sculpture; executed, as it appears, within a month, by John Dudley, Duke of Northumberland, who was beheaded 22d of August 1553. The amiable and unfortunate Lady Jane Gray appears next, or is supposed to appear, by the name *Jane* being written on different sides of the room. Philip Howard, Earl of Arundel, beheaded A.D. 1572, has subscribed his name to this sentence, *Quanto plus afflictionis pro Christo in hoc seculo, tanto plus gloria cum Christo in futuro*, which is said to be remarkably adapted to the character that has been left of him. The additions beneath are conjectured to have been made by subsequent Roman catholic prisoners, as forming an eulogium

eulogium on his memory; *Gloria et honore cum coronasti, Domine!* and—*In memoria aeternâ erit justus*; the latter part of the verse, “but the name of the wicked shall rot,” is omitted, probably through fear of the party then in power, though they are strongly intimated by the addition of the first word, ‘*At.*’—Several other inscriptions and sculptures are recorded, some of which are prettily executed; and a short explanation or history is added, where it could be obtained. The last in the list is *Hew Draper*, who was suspected to be a conjuror or sorcerer, and was committed A. D. 1560; and (which appears remarkable,) ‘by the accusation of one John Mann, an *astronomer.*’ Whatever this Hugh Draper might be, the sphere which he executed, according to the engraving here given, appears to be very ingenious.

Of the Number which follows, it is sufficient to insert the title; *Copy of an Original, entitled “Instructions for every Centioner to observe during the Continuance of the French Fleet upon this Coast, untill Knowledge shall be had of their Dispersement, given by Sir George Carye, Captein, this fyrst of September, 1586.” Communicated by Sir William Musgrave, Bart.*

In a letter from William George Maton, M.B. F.A.S. we find a short relation of *the Fall of some of the Stones of Stonebenge*. Some people employed at the plough, at the distance of half a mile, in January 1797, suddenly felt a considerable concussion, or jarring of the ground; which was occasioned, as they afterward perceived, by the fall of two of the largest stones and their impost. That the concussion should have been so sensible will not appear incredible, when it is remembered that, according to Mr. Maton’s calculation, the ponderosity of the entire *trilithon* will be found to be nearly 70 tons. It is supposed that ‘the immediate cause of this memorable change in the state of Stonehenge must have been the sudden and rapid thaw, which began the day before the stones fell, succeeding a very deep snow.’ The precise time of any prior alteration is not found on record; ‘it is therefore probable that none may have happened for several centuries; and the late accident, being the only circumstance ascertained with exactness, may be considered as a remarkable æra in the history of this noble monument of ancient art.’

The Rev. Samuel Denne, a frequent contributor to these volumes, is the author of the two ensuing articles; each of which discovers great attention, accuracy, and ingenuity: they relate to a *date or numeral Inscription on a Barn, and also on an oast-house or kiln, at Preston-hall, Kent*, together with another on the *Mantle-tree of a Chimney in the Rectory-house of Helmdon, Northamptonshire*. From these dates, it has been inferred that
the

the *Arabian numerals*, now in common use, were known and employed in England, in the 13th century, or perhaps at a more early period: but Mr. Denne candidly and successfully (as we think) controverts the conclusion; so far, at least, as to make it appear that, though Matthew Paris (who died A. D. 1259,) had some acquaintance with the *numerals* in question, it was very long after his time that they became an object of serious attention, and were brought into general use. This is indeed surprising, when it is considered what difficulty and confusion often attended the calculations by *Roman capitals*: yet such, probably, was the fact.—Mr. Denne remarks: ‘Mortifying it is, as well as astonishing, to observe the slow progress formerly made in acquiring a science, a proficiency in which is now so easily obtained; for a stripling at a school in a country village can now, by the help of these figures, in a few minutes work a sum that the eminent Roger Bacon could not have reckoned, perhaps, in a whole day, with Roman capitals: and such being the benefit which has accrued to people of every degree and station in society by this admirable discovery, much is it to be regretted that neither the sagacious inventors, or Indians, or Arabians, nor the introducers of it into England or Europe, should be known, notwithstanding the assiduous and commendable endeavours of many learned men to rescue their names from oblivion.’

The Rev. Samuel Ayscough is the contributor of the twelfth article in this collection, containing *Copies of two Manuscripts on the most proper Method of Defence against Invasion*, by Mr. Waad.—This gentleman appears to have been variously and honourably employed in the reign of Queen Elizabeth. He offers some sensible advice on the subject in question, and is particularly earnest in his exhortations to avoid an immediate battle; ‘being (says he) the only thing for an invader to seek, and for a defender to shun. For the one doth hazard but his people, and hath a lot to win a kingdom; the other in losing of the battle hath frequently lost his crown. A battle is the last refuge, and not to be yielded unto by the defendant until such time as he and his people be made desperate, or until opportunity shall offer unto him great advantage;—albeit I would wish our nation to be well exercised and trained, (for battle) being a thing of great moment, yet to be used in our own country, as the sheet anchor and last refuge of all.’

The preceding paper is selected from the British Museum; as is also the next by the same hand, *Copy of a Manuscript intitled, “An Expedient or Meanes in want of Money to pay the Sea and Land Forces, or as many of them as shall be thought expedient without Money in this Year of an almost universal Povertie of the*

English Nation, by Fabian Philipps.—The expedient here chiefly proposed is to circulate coin of an inferior or base metal, for a limited time, under sufficient security of its being then replaced by that of real value; and the writer repeatedly laments the export of our own good money to foreign countries. The Paper is dated, July, 1667.

A short Letter from the Rev. John Brand gives the *Explanation of a Seal of Netley Abbey*. In Tanner's *Notitia Monastica*, *Edwardstow* occurs as the old name of this spot. 'Stow is well known to signify *place*, latinized on this seal by "*Stowe Sancti Edwardi*," which was probably the original name of the monastery, and this its *first* seal, representing the *Virgin Mary and Child*, with *St. Edward*, with uplifted hands kneeling before her.' This famous abbey seems to have been distinguished by the several titles of—*Netteley*—*Letteley*—*Edwardstow*—or *De loco S. Edwardi juxta Southampton*. It was founded in the year 1239 by king Henry III. Mr. Brand's wish for an accurate drawing of so 'great a curiosity' is now gratified.—The same gentleman furnishes an *Explanation of a Seal of the Abbey of Lundores, in Scotland*. The inscription on this seal runs thus, *Sigillum Sancte Marie et Sci Andree de Lundo****; here a piece has been broken off; and it is not wonderful that inquirers were inclined to suppose that the last word had some connexion with London: but Mr. Brand perceives that part of the *r* is still visible, and he does not doubt that the letters *e* and *s* followed it. His conjecture is well supported by the second volume of Dugdale's *Monasticon*; at the end of which, among the *Cænobia Scotica*, is luckily preserved (as he tells us) the charter of the foundation of an *Abbey for Monks at Lundores, dedicated to the Virgin Mary and St. Andrew*. This rich house, in the forest on the river Tay, by the town of Newburgh, in Fifeshire, is said to have been founded by David Earl of Huntingdon, brother to William king of Scotland, on his return from the holy land, A. D. 1178. The seal here described might be the first and original one of this fraternity. *Lundores*, we are informed, was erected into a temporary barony by James VI. A. D. 1600, in favour of Patric Lesly, son of Andrew, Earl of Rothes.

The short tract which next occurs may be regarded as *curious*, viz. *Copy of an original Instrument, dated 25th November 1149, concerning the Church-yard of St. Mary Magdalen in Milk-street, London*, exhibited to the Society by Thomas Loggen, Esq. It begins in Latin, and with great solemnity delivers the asseveration (the subject of which is imparted in English) 'how that a pece of voide grounde in the parish was comonly named and called it's *chirche-yard*—And that there stode a *cresse* in

in and uppon the same voide grounde, of the height of a man or more. And that the same *crosse* was worshipped by the *parishens* there as *crosses* be cominly worshipped in other *Chirchegards*.'

Copy of an original Letter from Queen Elizabeth to the Earl of Warwick, exhibited by Peter Renouard, Esq. 'in whose family this curious paper has long remained.' The letter relates to a particular appointment committed to the charge of Ambrose Dudley, Earl of Warwick, in the year 1563: he was lieutenant and captain-general of her Majesty's forces, and was therefore directed to fortify and defend Newhaven (Havre de Grace) against the attempts of the French. The Queen here represents the importance of the object, applauds the conduct of the Earl and those under his command, and assures them that nothing shall be wanting for their assistance and encouragement.—The last paragraph is somewhat peculiar, and is written with her own hand;—"My deare Warwik, if your honor and my desir could accord with the los of the nidsfuls finger I kipe God helpe me so in my most nide as I wold gladly lis that one joint for your aase abode with me, but sins I can not that I wold, I wil do that I may, and wil rather drinke in an asin cup than you or your's shude not be soccero both by sea and land, yea and that with all spede possible, and let this my scribling hand witness it to them all." The Earl, however, did not succeed; not, as it seems, through any failure in him or his men, but through the want of timely aid. He was obliged to capitulate, and to content himself with the liberty of withdrawing his garrison; with the mortification, soon after having signed the articles, of seeing Admiral Clinton appear off the harbour with a sufficient reinforcement. Hume observes, (vol. v. p. 80.) that "Queen Elizabeth's usual vigour and foresight did not appear in this transaction."

[To be continued.]

ART. XVII. *Elements of Chemistry and Natural History*. To which is prefixed, the Philosophy of Chemistry. By A. F. Fourcroy. Fifth Edition, with Notes by John Thomson, Surgeon, Edinburgh. 3 Vols. 8vo. 14. 11s. 6d. Boards. Mundell and Son, Edinburgh.—Longman and Rees, London. 1800.

THE elements of chemistry, by Fourcroy, have been so frequently introduced to public notice in different editions and translations, that it would be superfluous here to make any remarks on the work: but this edition has a claim to our attention, on account of the notes which have been added by

the editor; and which we have, indeed, perused with much pleasure. Mr. Thomson has not, like many editors, contented himself with giving the text of his author, with only a few superficial remarks; on the contrary, he has added many copious and valuable notes to each chapter, the selection and number of which discover much judgment, and considerable extent of chemical reading. By these notes, also, this edition has in a great measure been made to keep pace with the rapid progress of chemical science, since the publication of the original work.

In the advertisement prefixed to Vol. I. Mr. Thomson very candidly mentions that he has adhered to the translation of Mr. Nicholson; and that the translation of *the Philosophy of Chemistry*, which he has added, is also executed by another person. The notes on the animal kingdom, part 4, are particularly instructive and interesting. The same may indeed be said nearly of the whole; and we have no doubt that this edition will be found highly useful to chemical students. The typographical errors, however, are rather numerous; which, with some small mistakes that are evidently accidental, Mr. Thomson will undoubtedly correct in a future edition.

In page 189 of Vol. I. mention is made of Professor Pictet's curious experiment of apparently reflected cold; concerning which, we think it necessary to make a few remarks.

This experiment was repeated by M. Pictet himself, a few months ago, at the Royal Institution, in the presence of several eminent men of science; and there did not appear any reason for doubting that cold could really be reflected: but, without intending to lessen the merit of M. Pictet, we must observe that the first and original experiment of this kind was made about 135 years ago, by the Academy *del Cimento*, and may be found in the records of the experiments published by the secretary of that academy in 1667, and afterward translated into English in 1684. Nothing can exceed the modesty and candour with which this remarkable experiment is there related; and, as the work may not be in the hands of many of our readers, we here transcribe the account from the English edition:

" Of reflected Cold.

" We were willing to try, if a concave glass set before a mass of 500lbs. of ice, made any sensible repercussion of cold upon a very nice thermometer of 400 deg placed in its focus. The truth is, it immediately began to subside, but by reason of the nearness of the ice, 'twas doubtful whether the direct, or reflected rays of cold were more efficacious: upon this

account, we thought of covering the glass, and (whatever may be the cause) the spirit of wine did indeed presently begin to rise; for all this, we dare not be positive, but there might be some other cause thereof, besides the want of the reflection from the glass; since we were deficient in making all the trials necessary to clear the experiment *."

ART. XVIII. *Gleanings in England*; descriptive of the Countenance, Mind, and Character of the Country. By Mr. Pratt. 2 Vols. 8vo. 17s. Boards. Longman and Rees.

STILL mounted on his sentimental hobby-horse, Mr. Pratt continues his digressive remarks, exactly in the style of his former volumes †. We may with propriety term him, in his literary journals,

"A safe companion, and an easy friend;"

and, as he seems to have written while he jogged on his way, so those who run may read his journal. Delineations of character are, indeed, more interesting than outlines of landscape, and of the former Mr. Pratt has been profuse. He may be considered, in some degree, as the *Teniers* of English tourists; and whoever would enjoy the peculiarities of our loungers at watering-places, and our rustics of different classes, will be amply gratified by his volumes.

We must confess, however, that, though this author's manner and his descriptions are generally pleasing, his work is rather too full of verbosity, and of adventures with persons in the lower ranks of life; and that, though his morality and sentimentality are usually praiseworthy, they are too frequently excited by trifling objects, or displayed in superabundance. The first of the present volumes is particularly open to these remarks.

In a prefatory advertisement, Mr. Pratt thus explains the leading motives and design of this publication:

'The author's grand view has been, what, indeed, will be but repetition to state here—though that part of the plan cannot be too soon known—to present a *just and honourable idea of this important Country*, as a whole, from—not a mechanical, not a methodical,—but fair and liberal survey of its parts, taken in several journals upon its animated surface, with *descriptions* from immediate objects, and *reflections* moral, natural, political, or personal; either in connection with, or arising out of them. And the *motive* which suggested this

* *Essays of Natural Experiments made in the Academy del Cimento*. London, 1684.—Page 103.

† See Rev. N. S. vol. xix. p. 300. and xxi. p. 353.

plan,—besides a compliance with the wishes of an amiable *Foreigner*, who, in a perusal of many contradictory accounts, was still at fault how to settle our pretensions in any of the above-mentioned particulars,—was, and is, a most ardent desire, to promote *domestic* peace and union! If the plan were executed but half as well, as the sentiment that gave it birth is sincere and commendable, the content of the author's heart, which has been glowing even in the *attempt*, would indeed be absolute!

One of the features of this country, which Mr. Pratt here holds up to view, and to the admiration of wondering foreigners, is the institution of *Mail Coaches*; the rapidity and convenience of which he has fairly represented: but we must correct one part of this picture, the too high colouring of which might induce a foreigner to distrust the whole delineation: viz. the superior speed of our Post Chaises, which is stated to be more than double, nearly treble, that of the mails. So far from this being the case, the difference is not in general great; especially on the average of a long journey, and in travelling by night.—Of a similar nature is another characteristic, exhibited by this patriotic author as highly favorable to England; viz. the complete accommodation and real comforts of the Inns and Taverns. This praise is certainly merited; and Mr. Pratt has dignified it by adding the sonorous eulogy which Dr. Johnson bestowed on these favourite receptacles.

Vol. I. is devoted almost wholly to Norfolk, and gives many amusing particulars respecting Lynn, Houghton, Fakenham, Rainham, Walsingham, (a singular character recorded) Cromer, &c. with a digression to Ireland, and some observations and details respecting the late insurrection in that country. Of Cromer, which has now become a place of fashionable resort for sea-bathing, the author writes much at length, and with great commendation.

We shall present to our readers a part of Mr. Pratt's delineation of the English character, with his recipe for dispelling the reserve and coldness which are usually attributed to it:

‘It has been well observed, that the minds of the English, like their climate, are chequered with an extraordinary variety; which seems, indeed, to have been infused into the whole system of nature, and which is most agreeable where the scene is often changing. In most other countries, my friend, there is more of uniformity, both of clime and of character. In those, allowing for now and then a solitary Mannerist, or,—if you will grant me the word—Whinmist, there are not more distinctions of characters than of classes. The two degrees of high and low, with a sort of undefined intermediate body, form the whole nation, from the most stately order of the *premier Noblesse*, to the *petit Baron*, the distance of whose veins from the rich and *ichorous* blood which the former derives from the unfathomable

fathomable ocean of ancestry, is regarded but as a common puddle, dribbling through the system, impoverishing the very spirit, and unfitting him to mix a rivulet so sullied and scanty, with the crimson torrent that ennobles every artery of the *first order*.—

‘ But a social Traveller cannot go an hundred yards on ENGLISH ground without meeting something in one person, if he meets any body, that separates him from another, either in the *manner or the matter of his character*; and it is fifty to one but the next person he encounters will shew himself off as differently, as if he were of a different country; even should the discourse with the first man be continued with the second.

‘ A Dutch passage-boat, for instance, and an English stage-coach, will bring this into apt illustration. In the former, you will find a pipe in every month, and a long pause, broken only by the necessity of changing the barge, or by some solemn observation, for the most part, as ponderous as the vehicle in which you are drawn, and stagnant as the canal whereon you soporifically move. If the *great subject*, as they call it, (Trade) forces their thick and melancholy spirits through the fumes that envelop them—I speak chiefly of commercial people, for I have shewn, and you will admit, faithfully, there are very merry and light Dutchmen—yea, and Dutch women too—they seem to labour through their clouds, and you hear but one sound upon the one theme. *Gelt, gelt, gelt—Money, money, money—That is my demand, what is your offer?* Half an hour after the question, the breath is drawn in, to negative by a nod, or sent off with a puff into a fuliginous affirmative: yes, or no, often beginning and ending the compact. And one trade is the echo of another trade, as similar to each other as their pipes

‘ An English stage-coach, on the contrary, is usually filled with as many unimitating beings, as there are places to receive them. There is something peculiar and *appropriate* in every passenger, whether male or female; and they are not only strongly marked from each other in the casual journey that associates them for the moment, but very frequently each is distinct from every other of his family. The thoughts, and the mode of expressing them, belong exclusively, to him or to herself; and though the principles of the heart, whether bad or good, are the same all over the world, it is here, chiefly, that those principles are displayed in an unnumbered variety of forms, I had almost said of fancy dresses, even like characters at a masque, according to the particular humour, or disposition of the wearer.

‘ This diversity amongst us may be attributed, partly to the freedom of our government, which, without stilting some men into giants, and dwarfing others, preserves the due line of gradation, investing every individual with a just sense of himself, and of his happy situation.’—

‘ The British constitution allows to every being that contributes to form it, whatever be his state or station, an opportunity to *revere himself*; and though this, sometimes, encourages an over-rated estimate, it preserves, upon the whole, the due measure and weight, civil, political and religious.

‘ From whatever cause, however, our variegation from each other, in opinion and in action, arises, its effect is always pleasant, and often useful, to a traveller. It offers him, in every direction of his route, interesting, amusing, or singular companions by the way; and notwithstanding the deep national reserve, and coldness, imputed to my countrymen and women, and in which, it must be owned, they too often entrench themselves, they may be all brought into conversation if a traveller is resolved upon it; and however thick may be the ice at first setting out, the chilling influence will yield by degrees; a few good-natured remarks will cheer the surface like morning sunshine on the frozen current; the first subject that calls out a human affection, will begin the thaw, and an ingenuous exchange of those still, small, civilities that make up the great comforts of life, will, like the noon-tide ray, loosen yet more the stream from its impediments; the warm beams of the imagination, or the yet more ardent ones of the heart, will break out upon it; and there, joining each other, will melt away every remaining coldness and obstruction, so as to produce a flow of good humour, or good sense, during the rest of the voyage or journey, whether it be of a day, a month, or a year: perhaps, for the residue of the mortal travel of the parties. The ice, which, as it were, shuts up the lips, and closes the heart of an Englishman to strangers, whether of his own or other countries, being once thus unlocked and the free current of his estimable heart disencumbered, the blood that animates it flows copiously towards the being who has in this manner subdued the frost, and ever after it exchanges with that being the permanent glow of friendship, or of love.

‘ Much, therefore, depends on our taking out with us, a sufficient stock of that with which you, I know, are always amply provided—COURTESY—without a supply of which no man should attempt to go beyond the limit of his own garden-walls, and, scarcely indeed, to their extent; for a gilded fly, an obstructing flower, an obtrusive sunbeam, or a few heat-drops falling in his path, might annoy and put him out of temper with heaven and earth. The courtesy I write of, is, in truth, as necessary to a traveller as his passport, or his letters of credit, and it will be current where all other recommendations and introductions fail. It will *create* urbanity in the bosom where it was unknown before. It is solid as sterling gold, lighter of carriage than an English bank-bill, and though all Europe confesses the intrinsic value and utility of both these, at home and abroad, unnumbered instances have met my eye in this jarring world, where an ounce of *courtesy* would have outweighed, in the purchase of human happiness or human content, more than our banks or treasuries could buy. “A sweet word not only turneth away wrath,” but it leads to knowledge, to wisdom, to conciliation, to honour, pleasure and repose. It conducts to the best felicities of life, and attains the most gracious ends by the easiest means.’

A favourable specimen of this volume may also be given, by extracting the author's remarks on *Literary Journals*; a subject in which, of course, we find ourselves particularly interested:

‘ There

‘There cannot be a doubt but that while the liberty of the press, as to the freedom of publication, shall be sacred—and on this side of licentiousness, it ought to be uncontrolled—it is equally just that the sense and nonsense which indiscriminately issue from the immense vehicle of communication, should be subject to vigilant examination; otherwise the whole world would be over-run with abortions of the mind. We want the assistance of some guides, who will take upon themselves the trouble of separating the good from the bad, and wade through the troubled deep of literature, in order, if we may be permitted a continuation of the figure, to collect the pearls and gems, and to describe the useless weeds, whether swimming on the surface, or lying at the muddy bottom. A stupendous labour! if we consider the great disproportion betwixt the former and the latter. Applying this to the case in point, and it is by no means inapposite, a reader unused to such arduous undertakings, can image to himself no task so overwhelming as that of being left unaided to search for instruction in the mass of productions which are every year piled, mountain high, before him. We will even suppose whatever is most beautiful in fancy, captivating to the heart, and informing to the intellect, under his eye: but he startles at the view of the enormous *quantity*, nor can any degree of excellence in the *quality* reconcile, or, indeed, justify him,—in a life so brief, and so connected with other duties as the present—to the immeasurable fatigue of such a task. Even if there should be found a few persevering spirits, endowed with a fortitude to peruse all that comes to hand, the profit would be no ways answerable to the pain by which it must be procured. For this reason, it would be proper that there should be some professional inspectors to direct our choice, even were literary excellence and defect nearly equal. But when the average is on a ratio of at least ninety in the hundred in the scale of compositions *dead weight*, there is not, perhaps, any office so necessary as his, who, with patient circumspection, will examine the great account betwixt wisdom and folly, and settle the balance.’

‘It is not, therefore, possible to conceive a more useful institution than that of a Literary Journal, when conducted with various ability and inflexible justice; nor can it be denied that a great variety of articles, in every branch of literature, have been analysed on these principles; and a due proportion of good has thence resulted to the community.

‘Numerous as are the critical reptiles above-mentioned, there are very many writers endued with the perseverance, judgment and candour, necessary to all the useful as well as valuable purposes I have just stated.

‘We have to boast even at this day, of great and noble critics; and from most, indeed, in all of our Literary Journals, we find substantial evidence of unimpeachable judgment and unwarped integrity. It is not, however, to be expected, that any human association composed of many members, should be conducted on principles uniformly sagacious and correct. Were they to write apart, and consult together ultimately, there must even then often be a clash of sentiment, a dissonance of opinion,

‘Yet,

' Yet, I am persuaded, the critics above-described, are the very persons who most reprobate the virulences, and regret the errors for which they are made responsible. The literary body cannot be supposed to separate, or seem to move a limb independently:—much less to commit themselves, and confederate against each other, by deploring the want of candour in some of their colleagues, and of capacity in others. Thus from their not being associated by congeniality, or chosen by consent—and yet under a kind of compact to hold together, and by the good faith that should be preserved in all treaties, bound to support one another in the way of a common cause—the errors, incongruities, adulations and virulences, which are observed occasionally to disfigure their journals, attach indiscriminately to all.

' A man must write from the spirit of envy, or from pique, or ignorance, if he assents not to these arguments, because there is monthly confirmation of them. And of the authors who have, individually, to complain of uncandid treatment, or partial representation, there cannot be one who has genius and candour, in his own mind and heart, but must see and feel there is often just criticism, in the very publication where his *own* performance may be slighted or aspersed.

' If, therefore, like every other valuable institution, abuse has crept into this; if prejudice and prepossession too often vault into the chair, and instead of its becoming a *Judgement-seat*, where the labours of the human mind are to have a fair trial, it is frequently a *secret Tribunal*, where the judges are wholly unknown, and the facts judged, so unfairly selected and argued, although formed into the most serious charges, that the work which ought to be condemned is acquitted, and the production that deserves to receive distinguished honours, is, by this ungenerous artifice, supposed to be guilty of all the imperfections imputed to it.—

' If, in what by a misnomer is called criticism, the mutilated parts of a book are sometimes given as specimens of its general character—If, in offering an author's argument without reference to the context—by which alone its force or feebleness is to be determined—the most important and admirable reasoning is torn from its antecedent and consequent, like a limb hacked from the body, and presented in a mangled state, to serve as a measure for the harmony and beauty of the whole; or if, which is not more generous, or reasonable, a frequently licentious, sometimes malignant display is made of ill-grounded *ridicule*—a power, by which all things, the most grave and sacred, however happy they may be, in their conception and delivery, are discoloured, distorted, tending to excite the very reverse impression of that they probably *would* have made, on a mind unseduced by the intemperate sally of misapplied or ill-tempered wit—and all this to indulge the miserable propensity of raising a laugh against what, even at worst, is, perhaps, the best effort of its author to please the public; and who, possibly, in the bitterness of his disappointment, weeps not only over the loss of that daily bread which the scorner earns by his taunts, but which the industrious author has often earned more honestly than his critic—
if,

if, while it must be owned there are numberless objects, which deserve to be assailed by all the powers of wit, this dangerous talent snatches the honest morsel from the lip of Genius, for the paltry triumph of saying "a good thing;"—if those compositions which deserve our reverence, and which, perhaps, have delighted even the defamer himself privately, have, nevertheless, been publicly sacrificed—If the attempt to turn performances of indubitable merit and labour into ridicule, by shewing them under absurd circumstances, is but too successfully practised—If, "the sovereigns of Reason, and the artificers and purveyors of our most exquisite pleasures,"—those of the intellect are unquestionably of that order—if the rightful Critic upon the human understanding, is, by the common and inevitable lot of all corporate bodies, thus unfortunately mixt with those critical usurpers, who with pontifical pride, fulminate their defamatory bulls against Genius and Learning, in ignorant pomposity or in rude impertinence.—If such accusations are wellfounded, depend upon it, those who are the true protectors, advocates, and guardians of Literature—the *TRUE* critics—even while by a sacred duty they are constrained to reprehend, punish, or wholly condemn some of the votaries of Science and the Muses, *they* are the persons most touched and aggrieved whenever the numerous pettifoggers of Literature, any of those unprincipled usurpers with whom, by imperious circumstances, they may be blended, have perplexed or lost the cause of real Genius or Learning. The verdict, it is true, is always given by the PUBLIC—our Literary Grand Jury—but, if by false reasoning, or false impression, by partial evidence, or by corrupt influence, it is practised upon and misguided, the sentence would of course be unjust, though it might have the sanction of a majority of the council and of the judges.'

Vol. II. opens with Cromer again, and gives the delineation of another singular character, with some humour and effect:—then a long digression on quackery:—a letter on *English Charities*, a theme, we sincerely believe, of well-earned praise:—journey to Thetford, adieu to Norfolk, and entrance into Suffolk:—Bury St. Edmund's, and Newmarket:—Cambridge, the Colleges, &c. Oxford, and its Colleges, &c.*:—Huntingdonshire, St. Ives, &c.—When treating of Newmarket and its environs, Mr. Pratt draws a gratifying portrait of a distinguished nobleman, which we copy with much pleasure:

'I cannot leave Suffolk without directing your attention to Euston-hall, not because it is a noble edifice belonging to one of the most distinguished of our British Peers, but, because its present Possessor, notwithstanding all that our great British, and still inscrutable Satirist, JUNIUS, may have said of him, is one who, at his country-seat, in his thriving farms, and comfort-brightening cottages, deserves to be placed amongst those first-rate Benefactors of mankind, which in the benignity of their orb, effuse their rays where light and heat are wanted!!

* Some strictures on these universities, and the account of them, are communicated by Dr. Mavor.

'The Duke of Grafton goes his daily rounds of Benevolence! visits the cottages of Euston, Fakenham, &c. &c. in person, not only to *enquire*—for report made by a steward or other domestics in office, is sometimes wicked, and often partial—not, therefore, only to enquire, but to see—if the families, committed by pity and loving-kindness to his protection, are at ease, in health, in happiness—if wives, children, widows, orphans, *really* want any thing to make them so; which must sometimes be the case, although all his poor live rent-free.

'I have gleaned for you, also, another circumstance concerning this Nobleman. His Grace, I am just told by some of his *tenants*, whose information his very *enemies* will not presume to dispute, never raises his rents, nor, unless from flagitious conduct, changes his farmers—insomuch, that there has not been known to be any deviation from the family-line in the descent of his tenantry for upwards of a century. The husbandmen keep the even tenor of their way in all things.

'In a word, ever since my being within *reach* of oral and ocular evidence, I have, unseen and unknown to him, been upon the watch to catch the immediate *REAL* features of this Nobleman's mind, and just as I am about to quit my place of unobserved observation, I can conscientiously select for the motto of the above drawn portrait of this Nobleman, what the "honest Muse" of Pope has sung of the Man of Ross,

"Him portion'd maids, apprentic'd orphans blest,
The young who labour and the old who rest;
He, like the Man of Ross, the sick relieves,
Prescribes, attends, the medicine makes and gives."

People of high birth have been so generally the objects of the Poet's ridicule, and the very mark of their arrows, that every opportunity to rescue characters of this kind from the wantonness of wit, or the venom of envy, is not only a duty; but a delight, that gives one an exquisite sensation.'

The cruelty of the sports for which Newmarket is distinguished, as well as the degradation of manners now prevalent among the patrician votaries of horse-racing, are justly reprobated by the author; and he records, in contrast, two instances of remarkable benevolence towards this noble but suffering animal:

'We have to boast of a second Howard, my Friend, not inferior to the first, as to being merciful to his beast: An English Baronet, and, thank Heaven, he is still alive, (Sir Richard Hill of Hawkestone), cannot, indeed, vie with the high-toned jockies above-mentioned, who make money and sport by running and bleeding a poor animal to death; but, he can and does often repair the ruins, heal the bruises, and bind up the wounds of such as fashion or avarice, poverty or age, have brought low. For hapless and helpless steeds, under these circumstances, he has a warm shed, and a rich pasture. Nor is this sweet pity exercised in favour of his own steeds only. He purchases the way-worn, and the infirm, wherever he finds them; he

rescues

rescues them from the labour to which they would be no longer equal, and he gives them the repose which age, misfortune, and honest servitude deserve on the purest principles of compassion.

‘ A similar plan of benevolence is adopted by the Honourable Henry Erskine, leading Advocate of the Scotch Bar, as his brother is of the English.’

Many political reflections, and a number of poetical effusions, contribute to diversify these volumes:—in the former, Mr. Pratt manifests the sincere lover of his country*: in the latter department of literature, his merits have been long appreciated by the public.

After all the tours that have made their appearance, we are still in want of a most important view of the actual state of the kingdom, with respect to its manufactures. The influence of this species of employment on the customs and morals of the people is astonishing, and it would find employment for very sagacious and philosophic observers. If Mr. Pratt would mingle rather more of this nature in his tours, and somewhat abate the sentimental part, he would probably obtain the applause of a much more numerous—or at least of a more discriminating—circle of readers.

MONTHLY CATALOGUE,

For DECEMBER, 1801.

TRADE and COMMERCE.

Art. 19. *A Practical Book of Customs*, with Excise, upon all Foreign Articles imported; wherein is exhibited, at one View, the consolidated Customs, and Branches as levied since that Period; with the Law which imposed, Date of its Commencement, total Duty paid, and Drawback now allowed. Also Duties outwards, Bounties and Allowances on British Goods exported, those on the Fisheries, the Duties Coastwise, the Quarantine, Tonnage, and London-Dock Duties; and every Commercial Alteration and Addition, till the 5th of August, 1801: with Tables of Scavage, Baillage, Levant and Russia Duties, &c. &c. The whole intended to inform and assist Commercial Concerns in general. Large 8vo. 10s. 6d. To be had of Edward Mascal, at the Custom-House. 1801.

THE first edition of Mr. Mascal's very useful Book of Customs was noticed in our Review for December, 1799.—It were needless to repeat what we then observed, in regard to the general utility

* We think that we here recognize, in one of the chapters of Vol. II. (Letter XVII.) the contents of a small pamphlet some time since circulated under the title of “Our good old Castle on the Rock.” See Rev. N. S. vol. xxvii. p. 462.

of a work of this kind ; we shall therefore, on the present occasion, speak only to the leading circumstances of the second edition :—in doing which, we cannot better acquit ourselves than by transcribing the author's own account of what he has performed, viz.

‘ The rapid sale the first edition of this work met with, and the continued solicitations of many friends who were unavoidably disappointed of copies, might have been deemed a sufficient inducement for publishing a second : but the principal consideration which influenced me to undertake the task, was a sense of that duty, which, in my public capacity, I owe to the commercial interest at large ; being fully aware that, in a republication, I should have an opportunity of making many useful additions, and, at the same time, render some parts more clear and perspicuous ; in particular, East-India goods, under the consolidated form, was found in practice to be less universally and clearly understood than it ought to be,—owing to many articles under that arrangement, which are *unrated* when imported by the East-India Company, standing as *rated* under every other circumstance of importation.

‘ In order to obviate that difficulty, I have, in this work, arranged all such articles into a table by themselves, with an immediate reference thereto. And in like manner the duties and drawbacks, respectively arising out of the Union Act, &c.—and every other movement of duties payable to the revenue, with reference in the Contents to the folio ; conceiving it the most ready method of explanation and practice.’

We cannot but consider this book as the most complete work of the kind that has yet been offered to the public ; particularly to the mercantile part of the first commercial nation in the world.

NATURAL HISTORY.

Art. 20. *The Natural History of the Tea-Tree*, with Observations on the Medical Qualities of Tea, and on the Effects of Tea-Drinking. A New Edition. By John Coakley Lettsom, M.D. 4to. pp. 102. With coloured Engravings. (No Price marked.) Dilly.

This splendid pamphlet contains a collection of every important circumstance relating to the Natural History of the Tea-Tree. The first edition, printed in 1772, we believe, escaped our notice :—the present is enlarged, and adorned with an additional number of prints.

We shall pass over the first part of this work, which is merely a compilation from different writers, in order to notice the *Medical History of Tea* ; so long a subject of dispute among the Faculty.—Dr. Lettsom found that the odorous water, distilled from green tea, possessed narcotic qualities. The natives of China, from their experience of these properties in tea which retains its fragrance, never use tea till it has been kept for twelve months :—

‘ The generality of healthy persons find themselves not apparently affected by the use of tea : it seems to them a grateful refreshment, both fitting them for labour and refreshing them after it. There are instances of persons who have drank it from their infancy, to old

age; have led, at the same time, active, if not laborious lives; and yet never felt any ill effects from the constant use of it.

Where this has been the case, the subjects of both sexes were for the most part healthy, strong, active, and temperate. Amongst the less hardy and robust, we find complaints, which are ascribed to tea, by the parties themselves. Some complain that after a tea breakfast, they find themselves rather fluttered; their hands less steady in writing, or any other employment that requires an exact command of spirits. This probably soon goes off, and they feel no other injury from it. Others again bear it well in the morning, but from drinking it in the afternoon, find themselves very easily agitated, and affected with a kind of involuntary trembling.

There are many people who cannot bear to drink a single dish of tea, without being immediately sick and disordered at the stomach: to some it gives excruciating pain about that part, attended with general tremours. But in general the most tender and delicate constitutions are most affected by the free use of tea; being frequently attacked with pains in the stomach and bowels; spasmodic affections, attended with a copious discharge of limpid urine, and great agitation of spirits on the least noise, hurry, or disturbance.

Several cases are mentioned, in support of this general statement; and Dr. Lettsom adds that spitting of blood has been occasioned by breathing in an air loaded with the fine dust of tea:

It is customary for those who deal largely in this article to mix different kinds together, so as to suit the different palates of their customers. This is generally performed in the back part of their shops, several chests perhaps being mixed together at the same time. Those who are much employed in this work are at length very often sufferers by it; some are seized with sudden bleedings from the lungs or from the nostrils; and others attacked with violent coughs, ending in consumptions.

In this instance, however, the action of the tea is probably mechanical, like that of flour or stone-dust.—The noxious effects of tea are probably over-rated: that it is a narcotic, we cannot doubt: but it is not difficult to suppose that the constitution becomes so habituated to its action as to bear it without injury, when we consider how little evil arises from the use of a much stronger narcotic—Tobacco.

MEDICAL, &c.

Art. 21. *A Treatise on the Bath Waters.* By George Smith Gibbes, M. D. 8vo. pp. 71. 3s. Robinsons. 1800.

This work contains a chemical analysis of the Bath Waters, written with neatness and perspicuity. Dr. Gibbes points out two circumstances, to which attention has not yet been paid, respecting the effects of their external use; viz. the peculiar atmosphere of the Baths, and the power of the siliceous earth contained in the waters.

From the foregoing experiments I am led to believe that the Bath Waters contain some very active principles; besides their heat, which most assuredly increases the action of their other component parts, we find that they lower the purity of the air, by the quantity of azotic gas which is poured forth into the atmosphere over the Bath.

Bath. Large quantities of this air must be inspired by those who use the open Bath; and as we know that an alteration in the proportions of the component parts of atmospheric air, will produce evident effects on the human constitution, this circumstance may I think be pointed out with propriety as a source of medical inquiry. I have been informed by a very learned and scientific person, that siliceous earth has been found to produce, when dissolved in water, some very considerable effects on the animal economy.

As my experiments lead me to believe, that this earth forms a large proportion of the solid contents of these waters, as it appears to be very minutely divided, and as the high temperature may give it activity, I think this circumstance also may be regarded as worthy the attention of medical practitioners.

The general result of the experiments is thus given:

1. The temperature at a medium in the King's-Bath 114° , in the Hot-Bath a little above that of the King's Bath, and in the Cross-Bath, about 96° .

2. In the water, carbonic acid gas and azotic gas in very small quantities. The carbonic acid saturates the carbonate of lime which is evolved by boiling. The following aeriform fluids escape from the springs through the water, and appear in bubbles on the surface:

a.—Azotic gas	,80.
b.—Carbonic acid gas	,15.
c.—Oxygen gas	,05.

3. Iron in a state of extreme division, the quantities in consequence of its apparent volatility not to be estimated. According to some writers, the King's-Bath contains the largest portion.

4. Sulphate of lime or selenite in the proportion of 40 of the solid residuum.

5. Supersaturated carbonate of lime, 20.

6. Silix, 15.

7. Alum, or sulphate of alumine, 05.

8. Common salt and sulphate of soda, 20.

The solid matter forms about a 660th part of these waters.

The sand which is thrown up by these springs is composed of silix, selenite, carbonate of lime, some sulphur, and some particles of iron which have been found to be attracted by the magnet.

A second part of this performance is announced, which will contain an account of the medical properties of these waters.

Art. 22. *A candid Inquiry into the Education, Qualifications, and Offices of a Surgeon-Apothecary*; the several Branches of the Profession being distinctly treated on, and suitable Methodical Forms annexed; besides, various other Topics connected with the principal Offices are also subjoined. By Mr. James Lucas, late a Surgeon of the Leeds Infirmary, &c. 12mo. pp. 340. 5s. Boards. Cadell jun. and Davies. 1800.

This is a sensible tract, and contains many observations which may be advantageously perused by students and young practitioners. The

author

author writes like a man of just and liberal notions; and it certainly is of great moment to the public, that the numerous body of men, whose qualifications he appreciates, should be as well educated as Mr. Lucas requires, and should act on as candid and generous principles as those which he inculcates. A weighty trust is reposed in their hands; to be responsible for which, uncommon acquirements and attention are necessary.

Art. 23. *An Essay on Phlegmatia Dolens*, including an Account of the Symptoms, Causes, and Cure of *Peritonitis Puerperalis* & *Conjunctiva*, &c. &c. By John Hull, M. D. 8vo. pp. 368. 6s. 6d. Boards. Bickerstaff. 1800.

The disease termed *Phlegmatia Dolens* is a swelling of one or both of the lower extremities, which sometimes happens during the Puerperal State, and which has been described by many authors. The present writer supposes it to depend on an inflammatory affection of the muscles, cellular membrane, and inferior surface of the cutis; suddenly producing an effusion of serum and coagulating lymph from the exhalents, into the cellular membrane of the limb. The method of cure, which he proposes, consists in general evacuations, sedatives, and warm bathing; and, as topical applications, leeches, poultices, and fomentations are recommended. Several cases of the disease are given; and this verbose production also abounds with very long extracts from different writers. So little of the volume consists of the author's own remarks, that it would have appeared to more advantage if it had been considerably abridged; especially when we consider that Dr. Hull's theory of the disease is unsatisfactory, and that he has thrown little light on the method of cure.

Art. 24. *Medicina Praxæa Compendium*, &c. Auctore E. G. Clarke, M. D. *Editio Secunda, Plurimum aucta et emendata.* 12mo. 5s. sewed. Johnson, &c. 1800.

We have formerly noticed the first edition of Dr. Clarke's Abstract. (See Rev. vol. xxix. N. S. p. 456.) Of the present, we can only say that it is somewhat enlarged: the character of the work, in course, remains the same.

Art. 25. *The Physician's Portable Library*, or Compendium of the Modern Practice of Physic. In which the Causes, Symptoms, and Treatment of all the Diseases incident to the Human Body are clearly and fully delivered; together with the Virtues, Doses, and proper Exhibition of all the Medicinal Simples and Compositions directed in the last London and Edinburgh Pharmacopœias. To which are added, Tables of the new Names adopted by each College, and of their Reference to those formerly in Use. By Brabazon Smith, M. D. 12mo. 5s. Boards. Matthews. 1800.

This small work contains a short account of the principal diseases for which physicians are generally consulted: but we fear that it is too brief to be of much service, excepting to very young beginners. Most of the articles do not greatly exceed the length of the title-page, and we shall follow the author's example in our criticism.

Art. 26. *Oratio in Theatro Collegii Regalis Medicorum Londinensib, ex Harveii Instituto, habita Die Octob. 18^o, An. 1800, ab Henrico Vaughan, M.D. Medico Regio Extraordinario* 4to. White. 1800.

This elegant oration pleads a cause which, we hope, will never want powerful advocates among the faculty,—the utility of combining an attention to general literature with medical pursuits. It is by this union only, that an insuperable barrier can be placed between the philosophical Physician and the presumptuous Empiric; especially at this period, when dogmatism is declining in consideration with the great body of the profession.

The latinity of this discourse is pure, and several phrases are happily turned. With the sentiments which it contains, we entirely accord.

Art. 27. *Observations on the Diseases which prevailed on board a Part of his Majesty's Squadron, on the Leeward Island Station, between Nov. 1794, and April 1796.* By Leonard Gillespie, M. D. Surgeon and Agent to the Naval Hospital at Fort-Royal, Martinique. 8vo. pp. 240. 5s. Boards. Cuthell. 1800.

We meet with little that is either new or striking, in this publication. The author writes like a man of observation, but the subject of West-India diseases seems to be nearly exhausted.—Dr. G. thinks that persons infected with the itch are less liable to febrile contagion than others: this, if it be well founded, is a curious remark. He is a decided enemy to the copious use of mercury in the yellow fever, which has been so warmly recommended by several late writers; and he also condemns bleeding, emetics, and all active purgatives. His method of cure consisted in the frequent injection of glysters, shaving the head, bathing the patient repeatedly during the day in fresh lime-juice, and applying slices of limes to the forehead and other parts. The tepid bath was of much service, on the first remission of the fever. Internally, diluents, and opiates were used. Blisters, and the exhibition of Peruvian bark, were efficacious, when employed on the first remission of the fever. Stimulants were likewise advantageous, in this stage.—The remaining observations contained in this volume are of so miscellaneous a nature, that we cannot pretend to offer an analysis of them: but the work may be perused with advantage by West-India practitioners.

MILITARY and NAVAL AFFAIRS.

Art. 28. *An authentic Narrative of the Proceedings of his Majesty's Squadron under the Command of Rear-Admiral Sir James Saumarez, Bart. K. B. from the Period of its sailing from Plymouth to the Conclusion of the Action with the Combined Fleets.* By an Officer of the Squadron: 8vo. 1s. Egerton.

The readers of this narrative would have had more complete reliance on its *authenticity*, if the name of the writer had been prefixed: but a perusal of it inclines us to believe its testimony. With respect to the action with Rear-Admiral Lincolns' squadron and the Spanish batteries at Algeziras, on the 6th of July 1801, it decidedly appears
from

from this as from former accounts, that its unfavourable termination on our side was entirely owing to those failures of the wind which are so frequent in the Mediterranean, and to the operation of the currents; and that the capture of the Hannibal was caused by her unfortunately taking the ground. Indeed, the subsequent most honourable acquittal of Captain Ferris and the other Officers of that ship, by a court martial, not only proclaimed that no blame attached to them, but that the highest credit was due to their intrepidity and perseverance.

The exertions of the squadron in refitting, and its conduct in the action with the French and Spanish off Cadiz on the 13th July, merit the utmost praise; and the judgment of Sir James Saumarez, in choosing night for his combat with a force *above double his own*, was fully evinced by the consequences. Two Spanish first rates took fire in the confusion, and blew up; the San Antonio, of 74 guns, was captured by the Superb (in retaliation for the loss of the Hannibal); and the French ship the *Formidable*, of 84 guns, would have been a prize to the Venerable, had not the latter struck on a rock, and lost her masts.

The consequences of this discomfiture of the enemy are thus stated by the writer of the narrative, and have not hitherto, perhaps, been sufficiently appreciated:

* It is now ascertained that the division under Mons. Linois, with the troops on board his ships, were destined to take possession of the batteries at the mouth of the Tagus, and to seize the large fleet of British merchantmen that were in that river, and co-operate with the French army on the Portuguese frontiers in the capture of Lisbon itself.—Not only the commercial interest was, therefore, preserved from an immense loss, but the kingdom of Portugal itself may be said, in a considerable degree, to owe its present security to the defeat of this expedition.

Art. 29. *Narrative founded on a Series of Events which took place in the Island of St. Marcou.* By James Gomm, Esq. late Lieutenant and Commander of the Tickler Gun-vessel. 8vo. 1s. Steele: 1801.

It appears from this relation that Mr. Gomm, and the Lieutenants of two other gun-vessels, were superseded in their respective commands, in consequence of their conduct on occasion of some mutinous behaviour among the seamen, in July 1795: for which conduct, says Mr. G. 'instead of accusation, I felt that I ought to look for approbation.'—It is neither our duty nor in our power to give any judgment in this case: but, speaking merely from the present statement, Mr. Gomm's lot seems to have been rather hard.

Art. 30. *Observations on the Establishment of a Royal Military College, for the Instruction of the Officers of the British Army, as proposed by the Secretary at War.* 8vo. 1s. 6d. Egerton.

The writer of this pamphlet congratulates the army on the establishment of a public Military College, the foundations of which have lately been laid in the neighbourhood of Chelsea; because, he says,

'It has long been a subject of the deepest regret, that the officers of the British army have had no proper seminary in their own country, to which they might resort, in order to obtain a competent knowledge of the scientific part of the Military Profession. Whoever, therefore, aspired to honourable distinction in our service, was obliged to seek upon the Continent of Europe, for that instruction in the elementary principles as well as in the higher branches of Military Science, which he could not procure at home.'

In consequence of this difficulty, and of a reliance on the native energy and usual success of British troops, 'scientific knowledge (says this writer) has not been cultivated by military men in general;—and therefore it is not surprizing that in the attack and defence of fortified places, the officers of the British army have seldom displayed much military science.' To make our army equal to any in the world, what, then, is wanting? '*The union of science with courage, and tactics with discipline.*' For the attainment of this object, therefore, the new Institution is viewed with much satisfaction; and several regulations in the conduct of it are proposed.

The practice of purchasing and selling Commissions is here particularly reprobated as destructive, in various ways, of the improvement of the British army; and the opposite customs of the Navy are justly praised, as obviously tending to that superiority of our naval over our military operations, which is generally acknowledged. The author anticipates, but despises, the objection to the abolition of the purchase of Commissions, that it would prevent the nobility and men of large fortune from entering the army; and indeed we do not see why it should have such an effect, to any prejudicial degree, in the land service, any more than the non-existence of such a practice has in the navy.—In carrying the proposed abolition into effect, the necessary recompenses to those officers who have already purchased are then suggested: together with some rules to be observed in future promotions.

Various other remarks on the state of the army are added, relative to an increase of the Rifle corps, a diminution of length and weight in the arms of the light infantry, a reduction of the heavy dragoons, (as being very seldom of any material service,) the supply of clothing for regiments being in the hands of Government instead of those of the Colonels, the mode of firing and the position of officers in action, &c. The writer also suggests the restoration of the use of armour, so far at least as to protect the *heart*; and the institution of a new order of Military Knighthood. He likewise announces his intention of publishing some Observations on Field Fortification and Castrametation, and another work intitled Miscellaneous Tactical Disquisitions.

We give no opinion respecting the eligibility of these various propositions, but we recommend them to consideration. The restrictions lately imposed by the Duke of York on the rapid purchase of progressive commissions, and the Institution of the New Military College, may partly fulfil the design of some of them.

POETRY.

Art. 31. *Peace*, a Poem; inscribed to the Right Hon. Henry Addington. By Thomas Dermody. 4to. 1s. 6d. Hatchard. 1801.

Transported by the delightful prospect of peace, and by fond anticipation of all its attendant blessings, the author of this poem indulges his enraptured Muse with a profusion of poetic and prophetic embellishments. Were we to attempt to criticize this hasty effusion of patriotic enthusiasm, a similarity of *feeling* on this subject would soon induce us to drop the pen of censure; and we should ill succeed in offering so much violence to the good humour into which we have been thrown, by this happy and almost unexpected turn in our public affairs.—On this topic, then, Sing on, ye Sons of Melody and Rhime, without restraint or apprehension: for we can truly say, with the sweet Bard of Twickenham, that

“PEACE is our dear delight,—not Fleury’s more.”

Art. 32. *Ocean*: a Poem, in Two Parts. By Mason Chamberlin, Author of *Equanimity*, a Poem. 8vo. 1s. 6d. Clarke.

To a British bard, the subject chosen by this author may be supposed to communicate a kind of inspiration. If, however, we cannot compliment Mr. C. as manifesting the fervid glow of poetic sentiment, we can allow him the merit of being pious and patriotic. Here, as in his poem intitled *Equanimity*, (see M. R. vol. xxviii. N. S. p. 429.) he interweaves passages of scripture in his verse: but this practice excites the idea of a deficiency of invention, and produces a prosaic effect; as in this line,

“Whom no man living ever yet hath seen.”

It is still more material to remark that the 137 lines, which form the introduction, are irrelevant to the subject proposed; and that, however desirous the author may be to appreciate the respective merits of Thomson and Bloomfield, in the line of pastoral poetry, such a comparison is out of place here. The poem would be more homogeneous, if it were to begin with this passage; which is, indeed, no unfavourable specimen of Mr. C.’s powers:

“Ocean! to thee I dedicate my strain,
Thou “secret world of wonders in thyself,”
(As sung the bard, whose praises ever break
Spontaneous from my lips); for thou, indeed,
Art inexhaustibly an object form’d
For Britons to admire, who yet retain
(Under the auspices of Heav’n’s high will)
Their rank among the nations by thine aid.
As each new æra adds to the renown
Of our unrivall’d navy; as it still
Majestic o’er thy whit’ning surges rides,
Here ever fresh the subject of our song!
While youthful heroes emulously strive
To follow where their chieftains lead the way.”

Mr. C. introduces a morning view of the sea after a stormy night—vessels putting to sea—moonlight scene—light-house—reflections founded on the analogy between natural and moral objects—homeward-bound fleet—tales of Sophia and Henry—of Louisa and Edward.

The second part contains the fisherman's return—winter morning after a storm—addresses to Sir E. Pellew and Sir R. Curtis—noon-day view of the ocean—calm—rising breeze—storm—thunder and lightning, and the fall of a cliff by an electric stroke—reflections on the Divine Power; and with an address to God, of which the following extract is a part, the poem concludes:

‘ And as the morn with fairer lustre shines
After the horrors of the stormy night,
While ocean kindles with its cheering beams;
So let tranquillity and mutual love
Bless our united isles; while party rage,
By Truth's mild influence dispers'd, shall yield
Its yet contested reign, as gloomy clouds
Before thy penetrating sun retreat.
‘ Distinguish'd thus may Britain long remain,
‘Till wars shall end, and all mankind obey
The sov'reign law of universal peace.’

Art. 33. *Crim. Con.* To the Marquis of Blandford. 4to. 2s. 6d. Jordan, &c. 1801.

A very severe and pointed satire on the prevailing profligacy to which the title alludes; the late instance of which, here particularly reprobated, was noticed in our number for July last, p. 327. Many circumstances and characters are related and discussed, not only in this poem, (which is by no means a contemptible performance,) but in the annotations; and in both, the M. of B. makes a distinguished figure.—The reprehender himself, however, seems to deserve *reprehension*, for the ludicrous manner in which he has introduced, in his notes, some names of the highest respectability; and this he has inexcusably done, as it should seem, merely for the pleasure of “speaking evil of dignities.” Had he, on the contrary, brought forwards these great names for the sake of contrasting the conduct of such characters with those of the proper objects of his censure, there would have been an additional reason for our approbation of his performance.

Art. 34. *Suspiria Oceani: A Monody on the Death of Richard Earl Howe*, K. G. Admiral of the Fleet, and General of his Majesty's Marine Forces. By Dr. Trotter. 4to. 2s. Hatchard, 1800.

A poem written to convey encomiums so well merited as those which are here bestowed, and to mourn the loss of one of the greatest ornaments of our country, who to his distinguished naval talents added the character of an honourable and good man, is not an object for severe criticism.—Dr. Trotter's performance contains some good lines, and others which might have been good if the sense had been more correctly expressed. We give the few following, as a specimen of the versification:

‘ Bright

.. 'Bright from the main the orient morning spread,
 That ne'er must set on many a warrior's head:
 Soft in the bellying sails the breezes sleep,
 And scarce a fleecy wave deforms the deep;
 A flag* unknown to Neptune's wide domain
 Shed its faint streamers o'er the azure plain;
 There tower'd those banners, dy'd in civic blood,
 And claim'd the trident of the humbled flood.
 Meanwhile revolving in his manly soul,
 Fate's stern decrees, that human might controul,
 Britannia's hero bade the signal fly,
 And the loud cannon shake the vaulted sky:
 Quick thro' the trembling host he darts his course,
 And swift as lightning deals the thunder's force.'

If, in the first of these lines, the poet had told us simply that the sun had risen, the next would have followed with some propriety. We must suppose that the author meant the sun, and not the orient morning, 'that ne'er must set,' &c. In the fourth line, the word 'deforms' is not well chosen; nor is 'shed' in the sixth.

Several anecdotes occur in the author's notes, relative to the memorable battle of the 1st of June 1794, which would have been very interesting at a period less distant from that event†, and which will yet be perused with curiosity and satisfaction.

POLITICS.

Art. 35. *Reflections at the Conclusion of the War*: being a Sequel to "Reflections on the Political and Moral State of Society, at the Close of the Eighteenth Century." The Second Edition, with Additions. By John Bowles, Esq. 8vo. 2s. 6d. Rivingtons.

Qualis ab incepto. Mr. Bowles is not guilty of the smallest relaxation of sentiment; his love and his hatred remain the same; and the joyful sound of Peace cannot smooth one wrinkle on his brow. Louis XVIII. has not a more doughty champion, nor republican France a more inveterate enemy, than this writer; who cannot rejoice at the conclusion of the war, since it has failed to procure the re-establishment of the French monarchy. Alarms are also excited respecting the dangers to which we are still exposed from the monster Jacobinism, who is said to be left in the plenitude of power, and to render it impossible for us to return with safety to a peace establishment.—The object of Mr. Bowles seems to be, to prevent our improving the peace in the spirit of peace, and to keep alive an hostile disposition which on the first occasion may break out into a new war. We, however, cannot perceive, even on his own principles, the good policy of this conduct. As the war has failed of accomplishing one of the objects which its advocates had most at heart, viz. the restoration of the Bourbons, is it not wise to try the effect of

* The tri-coloured flag; originally intended for the nation, the law, and the king, of the constituting assembly.

† We are sorry that our notice of the pamphlet itself has been long accidentally delayed.

Peace? Mr. B. maintains the *justice and necessity* of the war, and thinks that there can be no safety for us, without the restoration of the French monarchy; but, according to his principle of the *moral sense*, which he says 'never fails to determine in favour of those claims which have the sanction of antiquity, which opposes almost insurmountable difficulties to the establishment of unjust claims to dominion,' and which 'makes usurpation tremble on its throne,' recourse to arms in favour of the Bourbons was completely *unnecessary*; and it would have been more prudent to have given time for the operation of this moral sense on the minds of the French people,—abstaining from all interference, as the states of Europe did at the period of our republican commotions.

We may have been blameable in not having calculated the consequences of failure in the great object of the war; but, be this as it may, since the sword is returned to its scabbard, let us endeavour to convert the peace into a blessing, and refrain from that abuse of the French and of their First Consul, in which Mr. Bowles so inconsiderately indulges himself.

Notwithstanding this writer's objections to the Peace, and though he considers it as a *Peace of necessity*, which has preserved every thing but secured nothing, he by no means admits the sentiment which Mr. Fox is said to have advanced, that *we have gained none of the objects of the war*. On the contrary, he asserts that 'we have gained objects of inestimable value;' that 'we have preserved the British monarchy;' that 'we have raised, to an unexampled pitch of glory, the reputation of our arms by sea and land;' and that 'we have stemmed the torrent of revolutionary and infidel principles.'—'Such (says he) are the objects which we have gained by the war; and *though they may be of no value in the eyes of the Whig Club*, yet in the estimation of the British people, they compensate all the treasures, and they immortalize all the blood, which have been expended in their attainment.'

Mr. Pitt is complimented by Mr. Bowles as the saviour of the thrones of Europe, and Mr. Fox is considered as an enemy to their security.

Art. 36. *Observations on the Factions which have ruled Ireland, on the Calumnies thrown on the People of that Country; and on the Justice, Expediency, and Necessity of restoring to the Catholics their Political Rights.* By J. E. Devereux, Esq. The Second Edition. 8vo. 4s. 6d. Richardson.

All unprejudiced men must acknowledge that Ireland, for a length of time, had much just reason for complaint. From the reign of Henry II. to the present period, she has been treated with harshness and injustice; and the crimes laid to her account are, perhaps, more owing to the severity with which she has been ruled, than to any evil propensities in her own disposition. Indeed, as people are formed in a great measure by the nature of their government, and as it is confessed that for ages Ireland has been miserably governed, it is but fair to consider the irregularities which have disgraced that country, as in some degree the result of our own mismanagement and narrow views. Mr. Devereux has too much reason for asserting that the people

people of that country have been uniformly calumniated; and not contented with merely resisting the calumny, he undertakes to shew that 'they justly merit the esteem of the people of Britain.' As the union has taken place, this is a sentiment which it certainly is politic to encourage.

Mr. D. is an able apologist for the catholics, and a most strenuous advocate for their emanicipation. He takes great pains to refute 'all the old fanatical lies, and all the common-place charges which have been rung upon the priesthood and popery;' assuring us that 'the ministers of the catholic worship are, with an impudent grossness, charged with crimes which they abhor.' In fine, he solemnly deprecates the hypocritical tyranny of what he terms the *Faction*; and he maintains that, without a complete restoration of catholic rights, it is not at present possible for a British minister, even with the best intentions, to establish a good government in Ireland. This position is supported by much able reasoning: what effect it will produce, time must discover.

Art. 37. *A Review of the Principles on which the Clergy are excluded from sitting in the House of Commons: with a few cursory Observations on Residence. In a Letter to a Friend.* 8vo. 1s. 6d; Reynolds.

This letter is stated to have produced the conviction of the gentleman to whom it was addressed; and we have not the smallest reason for doubting the fact, since it is replete with good sense and sound reasoning. The author considers the late act for removing doubts, respecting the ineligibility of the clergy to a seat in the Commons' house of parliament, as having not only disfranchised a large body of men, but as having also narrowed the liberty of every other subject, by restricting his choice to fewer objects. As the wisdom of *past* parliaments is revised by the wisdom of the *present*, in turn that of the *present* may be submitted to the review of that of some *future* parliament; when, it is not impossible, doubts will be entertained respecting the equity and policy of the late act for removing doubts. The reasons urged for excluding the clergy from a seat in the Lower House tend also to disqualify them for being justices of the peace, or commissioners of taxes, and should prohibit the Bishops from sitting in the House of Lords. It is now idle to discuss the objection to the admission of the clergy to a seat in the House of Commons, on the ground of their being represented in Convocation: but if this objection, as the present writer observes, were to be brought forwards in its full force, it would apply only to their being admitted into parliament *as a body*, and not to the case of a *clerical individual with a lay qualification*.

We are assured by this gentleman, that it is not for the sake of the clergy that the equity of their claim is here supported; and knowing the purity of our own motives in maintaining the same side of the argument, we can easily believe him. It is not in harmony with the British constitution to decide that a man, when he commences a priest, shall cease to be a citizen. Should it be determined that parliamentary and parochial duty are incompatible, yet there is

no reason in decreeing that a man who was once a priest, shall never be a legislator. An act of regulation may be passed, declaring that no person whatever should be competent to serve in the Lower House of parliament, as long as he held any ecclesiastical preferment: but farther than this, we think, the principles of policy and of the constitution may not warrant us to proceed.

To enforce residence, this writer would not employ any harsh and violent measures. He would not expose the non-resident clergy to penalties, which might never be levied: but he would simply assess on every absentee a sum equal to the rate of his benefice in the king's books.—This is certainly a mild remedy: yet there can be no doubt of its producing considerable effect.

MISCELLANEOUS.

Art. 38. *Essays, selected from Montaigne.* With a Sketch of the Life of the Author. 12mo. 4s. Boards. Cadell jun. and Davies. 1800.

Every person, who is acquainted with the writings of Montaigne, must lament that they contain many passages that are improper for general perusal. The fair sex are almost excluded from participating in the instruction to be derived from his essays, by the great intermixture of indelicacy with some of his most serious subjects. In the publication before us, a lady has rendered the acceptable service of selecting those parts which are unobjectionable, and of offering them in corrected language to the attention of females and young persons. We heartily applaud so proper an undertaking, and wish it all possible success.

Art. 39. *A Father's Instructions; Part the Third; adapted to different Periods of Life, from Youth to Maturity; and designed to promote the Love of Virtue; a Taste for Knowledge; and attentive Observation of the Works of Nature.* By Thomas Percival, M. D. &c. 12mo. pp. 142. 2s. 6d. Johnson. 1800.

It is a frequent subject of complaint, among readers who possess more sensibility than attention, that books which consist of several volumes are seldom supported with equal spirit to the last. In works of mere amusement, the blame of such failures may be fairly divided between the author and his reader; where one nods, the other will naturally sleep: but in moral and didactic performances, we have a right to expect that "the latter end should be like the beginning." We cannot, therefore, observe without regret that the present sequel to a work, which has been formerly noticed with approbation in our Review*, proves very unequal to the expectations which the preceding parts had excited. The cause of this deficiency is probably to be found in the melancholy events, recorded by the inscription to the memory of the author's two elder sons; and to the feelings of grief thus originating, we may ascribe the general strain of the book;—which is pious, resigned, and consolatory, but destitute of those comprehensive views of life and manners, which either the practical philosopher or the sagacious man of the world would present to his children, on their entrance on the busy stage of human affairs.

* See M. Rev. vol. liv. p. 184. and vol. lvi. p. 391.

Much, indeed, of what relates to this important period of female existence, has been anticipated in Dr. Gregory's *Legacy to his Daughters*; and much of the instruction most salutary to young men, on their introduction to life, has been delivered by Dr Fordyce. Yet there are many important changes of manners, in these days of innovation, which would afford ample scope for the exertions of a skilful observer.

We lament, therefore, that a great part of this Supplement to Dr. Percival's *Instructions* has been devoted to the discussion of abstract questions, which have already been sufficiently debated. The *origin of evil*, for example, occupies a space of nearly fifty pages out of 142, in this volume; and the view, which the Doctor has taken of this intricate question, differs very little from that which Pope has given in the *Essay on Man*:

" All nature is but art, unknown to thee,
All chance, direction, which thou canst not see;
All discord, harmony not understood,
All partial evil, universal good."

Dr. P. has merely enlarged on these topics, without attempting a philosophical solution of the difficulty.—The remaining part of the volume contains *Miscellaneous Communications to a Young Clergyman*, (the Doctor's eldest son) selected from private correspondence. These papers are creditable to the author, as they evince paternal affection and solicitude, but they contain nothing superior to the general scope and merit of sermons.

Perhaps we have been rendered more sensible to the limited nature of this publication, in consequence of having lately passed under review the letters of Dr. Aikin to his Son. After having perused a work so comprehensive in its objects, interspersed with applications of general philosophy to the particular incidents of life, and distinguished by ease and perspicuity of language, we may be less disposed to relish discourses which appear to be calculated rather for the pulpit than for a family-circle, or for the perusal of literary men.

Our readers will not expect more particular criticisms on the contents of this volume, after the preceding remarks.

Art. 40. *Information for Cottagers*, collected from the Reports of the Society for bettering the Condition and increasing the Comforts of the Poor; and published by Order of the Society. 12mo. 6d. Hatchard.

Since we must "have the Poor always with us," it is a matter of the soundest policy, as well as a principle of our religion, to consult their comfort. If they be fairly used as valuable members of the community, we shall have little reason for considering them as burdens on it. Let us be more just, and there will be less occasion for our being charitable. Our system of Poor laws requires a most complete revisal; and our conduct towards the Poor themselves ought to be more liberal. They, as well as the Rich, should have as much independence as their humble circumstances will admit: their wages should be equal to their support; and their virtue and usefulness

fulness will depend on the habits of order in their domestic economy. We admire the little publication before us, because it directs the attention of the Public to the Cottage, and is calculated for the Cottager. How much is it to be lamented that country-gentlemen have considered a large Poor-House, or House of Industry, as preferable to a village of decent cottages; and that the Poor, from a mistaken notion of their being better managed and more cheaply fed by the Parish, have been forced from under their lowly roofs to take refuge in these vast Monasteries of Indigence! By the enormous increase of the Poor-rates, the Public begin to be awakened to a sense of the error of the old system; and it may be presumed, since Parliament will now have leisure for the discussion, that the state of the Poor will undergo a minute inquiry. Should this be the case, we hope that the labours of the Society with which this little work originates will not be disregarded.—While the Nation at large is invited to weigh the superior advantages of the Cottage system, suitable advice is here given to the cottage-inhabitant; with a paper on the comforts of the poor, golden rules for their instruction, and several very useful receipts for stewing, for making beer and bread, for preparing rice, &c. &c.

Art. 41. *Observations on Friendly Societies*, for the Maintenance of the Industrious Classes, during Sickness, Infirmary, Old Age, and other Exigencies. By Sir Frederick Morton Eden, Bart. 8vo. 1s. White. 1801.

Of all plans for extending relief to the sick and suffering Poor, that of Friendly Societies has been thought to be least exceptionable; and it is benevolent to consider its advantages and present defects, in order that this system may be brought to as much perfection as is possible; that the Poor in every place may be induced to form Institutions of this kind; and that, finding themselves adequate with prudence and forethought to their own support, they may avoid the miserable idea of dying in a work-house:—the desirable consequence of which would be that the Public might be exonerated from those *bounties on idleness*, (as Dr. Franklin called them,) *the Poor-rates*.

We are entirely of opinion, with this humane and judicious Baronet, that 'Contagion, moral as well as physical, is frequently the result of multitudinous assemblies;' and therefore we have expressed ourselves partial to those plans which enable the Poor to live apart, rather than to those which congregate them. Friendly Societies, as consonant with the system of Individuality, merit encouragement. Sir F. M. Eden reckons the aggregate number of these clubs in England and Wales at 7200; which, on an average of 90 members for each club, makes a total of 648,000 persons united, throughout the kingdom, in Friendly Societies. Wishing to promote the cause of the Poor, he discusses the present imperfections of these associations; and he advises that there be formed a *National Institution, or Insurance Office*, from which the industrious classes might, on just and equitable principles, secure a provision against the various exigencies to which they are exposed. Such an establishment, he thinks, would render Friendly Societies more popular, and their advantages less equivocal. A Benefit Society on a very simple principle, says the Baronet, is established

established in the county of Ayr in Scotland. It consists of about 50 members, and is called the Penny or Halfpenny Society. It has no funds which can be embezzled: but, when a brother is confined to his bed by sickness, every member pays him a penny weekly; and if he should be able to go out, but not to work, a halfpenny. We admire the simplicity of this plan, and deem it intitled to consideration.

Art. 42. *Another Essence of Malone, or the Beauties of Shakspeare's* Editor. Second Part. 8vo. pp. 190. 5s. Becket. 1801.

We have already had occasion to notice two publications of this author, to each of which he had given the appellation of '*The Essence of Malone*.'—Is he not aware that, if he continues his productions, (no difficult task, when we consider the manner in which they are executed,) he should change his title, and christen them the *Substance of Malone*?—Pope says

"There are whom Heav'n has blest with store of wit,
Yet want as much again to manage it"—

a couplet which he afterward exchanged for the following;

"Some, to whom Heav'n in wit has been profuse,
Want as much more to turn it to its use."—

This censure of the Poet is not deserved by Mr. Hardinge; he is not so reprehensible for the use to which he has turned his wit, as for the absence of that quality; for it must be allowed, in the language of Butler, that

"He was very shy of using it."

We observed, in our former article, that this critic discovered more instances of ill-will towards the object of his attack, than either ability or judgment; a sentence which, in the present instance, is still more decidedly merited. If Mr. Malone be not censurable for his productions, we certainly are to be pitied for their consequences, when they introduce such a race of

"Unfinish'd things, one knows not what to call,
Their generation's so equivocal."—

Art. 43. *New Joe Miller; or, the Tickler.* Containing near two thousand good Things, many of which are original, and the others selected from the best Authors. Vol. II. 12mo. 3s. sewed. Ridgway. 1801.

Mr. James Bannantine here avows himself to be the editor of this volume, as well as of its precursor, which we mentioned in our Number for April last; and he says that, notwithstanding the arbitrary remark that the Scotch are deficient in wit, he has thus 'ventured on the task of compiling and circulating *his own wit* and that of others,' though he had 'the misfortune to be born beyond the Tweed.'—We should certainly dispute this national reflection, on general grounds, and we think that Mr. B. affords an individual proof of its falsity: but the nature of many of the *good things* here recorded, both his own compositions and those of others, requires us again to remind him that mere *indecency* is not *wit*, and that even sterling wit is lamentably depreciated by the mixture of obscenity. His endeavours to repel any supposed

supposed objections against the *trifling* quality of his work, by asserting the beneficial tendency of any publication that promotes 'innocent mirth:' we agree in his idea: but we cannot deem that mirth *innocent* which would put modesty to the blush, and encourage ideas which contaminate the mind. We observed that jests and epigrams of this description were too frequent in Mr. B.'s former volume; and both this remark, and the general character which we gave of that compilation, are equally applicable in the present instance.

We shall copy, for our Christmas readers, one or two of those jokes that may tickle without wounding:

'When a Jew, who was condemned to be hanged, was brought to the gallows, and just on the point of being turned off, a reprieve arrived: when Moses was informed of this, it was expected he would have instantly quitted the cart, but he staid to see his two fellow-travellers hanged, and when asked, why he did not get about his business, said, "*He wanted to see if he could bargain with Maister Ketch for the two gentlemen's clothes.*"—

Epigram.

'Tom prais'd his friend, who chang'd his state,
For binding fast himself and Kate

In union so divine:

"Wedlock's *the end of life*," he cried:

"Too true, alas!" said Jack, and sigh'd—

"*T'will be the end of mine!*"

'A man sitting one evening at an alehouse, thinking how to get provision for the next day, saw a fellow dead drunk upon the opposite bench. "Do you not wish to get rid of this sot?" said he to the landiord. "I do, and half a crown shall speak my thanks," was the reply. "Agreed," said the other; "get me a sack." A sack was procured, and put over the drunken guest. Away trudged the man with his burden, till he came to the house of a noted resurrectionist, at whose door he knocked. "Who's there?" said a voice from within. "I have brought you a *subject*," replied the man: "so come, quick, give me my fee." The money was immediately paid, and the sack, with its contents, deposited in the surgery. The motion of quick walking had nearly recovered the poor victim, who, before the other was gone five minutes, endeavoured to extricate himself from the sack. The purchaser, enraged at being thus outwitted, ran after the man who had deceived him, collared him, and cried out, "Why, you dog, the man's alive."—"Alive!" answered the other; "so much the better; *kill him when you want him.*"—

'Lord Mansfield, being one time upon the home circuit, a man was brought before him charged with stealing a silver ladle, and, in the course of the evidence, the counsel for the crown was rather severe upon the prisoner for being an attorney. "Come, come," said his Lordship in a whisper to the counsellor, "don't exaggerate matters. If the fellow had been an attorney, you may depend upon it he would have stolen the bowl as well as the ladle."—

The following Epigram is so well founded, that we could not object to its point, even if it were more likely to scratch:

Innocence.

Innocence

' If Eve in her innocence could not be blam'd
Because going naked she was not asham'd ;
Whosoe'er views the ladies, as ladies now dress,
That again they grow innocent sure will confess ;
And that artfully too they retaliate the evil :
By the devil once tempted, they now tempt the devil.'

A number of political squibs in this volume proclaim the editor a warm anti-ministerialist ;—equally an anti-Pittite, and an anti-Ad-dingtonian. What would this Gentleman have? Perhaps he would hope to be prime minister himself, if a merry Charles II. now filled the throne.

SINGLE SERMONS.

Art. 44. *The unjustifiableness of Cruelty to the Brute Creation, and the Obligations we are under to treat it with Lenity and Compassion.* 8vo. 1s. Seeley. 1801.

If this sermon has never been preached, we see no reason why it should not ; for while we may find one which is superior, we are doomed to read fifty that are not so good. Indeed, it has given us so much real pleasure, as being completely in unison with our sentiments and feelings, that we request the writer to accept of our warmest thanks for his humane effort in behalf of the Brute Creation. We admire his eloquence in favour of the poor Ass ; (an animal whom not even superstition has been able to befriend ;) and we think that he might also have *opened his mouth* (text Prov. xxxi. 8.) for the timid hare : but, being himself, perhaps, partial to hunting, he has only contemplated the pleasures of the *pursuing* and not the misery of the *pursued* animals. The importance of checking the mischievous and cruel dispositions of children is properly maintained. May the representation produce a good effect !—In the following short address to sensibility, we discern the traits of an amiable mind :

' O SENSIBILITY ! thou that art justly so called ; may thy endearing name never be prostituted to a purpose so contrary to thy nature, as the wilfully, and at the same time unnecessarily afflicting any of God's creatures ! May thy benign influence be diffused through the whole human race ! May it add a gentleness to manly strength and vigour, uniting in a firmness of mind, ever prepared to aid and protect the weaker and more defenceless part of our own species, and scorning cowardly to trample on the lowest classes in the scale of animated beings !'

The author does not strenuously urge the doctrine of the "future existence" of brutes ; nor does he incline to the Gentoo principle ; he wishes us, however, to regard mercy towards them as a duty, and "*till we end the Being, make it blest.*"

Art. 45. *The Unity of Wisdom and Integrity recommended :* delivered at Bridport, Dorsetshire, July 1, 1801, before the Society of Unitarian Christians, established in the West of England, for promoting Christian Knowledge and the Practice of Virtue by the Distribution of Books. By John Prior Estlin. 12mo. 1s. Johnson.

Mr.

Mr. Estlin appears to be a sensible, ingenuous, and amiable man; and his present discompe must give him credit even with those who may not admire his principles. He neatly explains what is meant by having the wisdom of the serpent combined with the harmlessness of the dove, (the text, Matth. x. 16.) and exhorts his hearers to be 'ardent without bigotry, honest without weakness, wise without craft, prudent without selfishness, and steady without obstinacy.' To a manly avowal of his belief in the Unity of God and the Humanity of Christ, he adds the mental process by which, though educated in different sentiments, he arrived at this conviction. Many Christians will probably be dissatisfied with Mr. E.'s explanations of those passages, which are commonly adduced as evidences of the pre-existence: but they cannot question his religious integrity, nor his piety,—though they should join with us in objecting to his description of the Deity as '*the great master of the Drama.*'

Art. 46. Delivered in the Parish Church of Wimbledon, Surrey, before the Wimbledon Volunteer Cavalry and Infantry, Sept. 28, 1800. To which is added an Appendix, containing the Nature of the Engagements to which the Members of Volunteer Corps pledge themselves at the Time of their Association. By S. Hodson, M. B. Rector of Thrapston in Northamptonshire. 8vo. 1s. Hatchard. By recounting the series of our national blessings, Mr. H. exhorted his audience to religious gratitude; and by describing the nature of the danger with which we were threatened at the time of the delivery of this sermon, he endeavoured to awaken them to proper unanimity and exertion. His reflections are suited to the occasion; and, in the Appendix, he has concisely delineated the duty of Volunteer associators.

CORRESPONDENCE.

Mr. Burdon's letter has reached us, but we never saw the publication to which it refers, and of which it is now almost too late to take notice, with propriety.

Mr. Ashdowne will probably derive some satisfaction, on the point of his inquiry, from the viiith Article of this Number. Respecting the particular work which he mentions, we cannot give him any information.

We have received a letter from Mr. Pearson, of Rempstone, but it came too late for farther notice at present.

The letter signed *Cortinas*, and others, are under the same circumstances.

THE APPENDIX to Vol. xxxvi. of the MONTHLY REVIEW will be published with the Number for January, as usual; and will contain a variety of articles of FOREIGN LITERATURE, with the General Title, &c. for that Volume.



A P P E N D I X

TO THE

THIRTY-SIXTH VOLUME

OF THE

M O N T H L Y R E V I E W

E N L A R G E D.

FOREIGN LITERATURE.

ART. I. *Voyage dans la Haute Pennsylvanie, &c. ; i. e.* Travels in Upper Pennsylvania and in the State of New York, by an adopted Member of the Oneida Nation. Translated and published by the Author of the *Letters of an American Farmer*. 3 Vols. 8vo. Paris. 1801. Imported by De Boffe, London. Price 1l. 4s. sewed.

THE numerous accounts of the provinces of North America, which have been published by European travellers, within a few years, exemplify the truth of the assertion that these States afford a field for description which cannot easily be exhausted. The work before us might with some propriety have been intitled, *Tableau des Etats Unis*; since, in addition to the route announced in the title-page, accounts of most of the other provinces are introduced either in the way of travels, or as communications received. It is, in fact, a collection of information drawn from various sources, to which M. DE CREVECOEUR has given the semblance of a translation from an English manuscript, said to have been found among the wreck of a vessel from Philadelphia bound to Denmark. The MS. is represented to have suffered injury, and to be incomplete: occasionally therefore, and not inconveniently, chasms are suffered to appear.

In the commencement, we find an essay on the characters of the native tribes of that part of America which is now under the dominion of the United States; including a general view of their condition from the earliest settlement of the Europeans

to the present time. With an examination of this *Essay*, therefore, we shall begin our remarks. It is given as part of a discourse delivered in 1785, by Col. Crawghan, who was employed during several years by the English government in the department for Indian affairs. He remarks on the great uniformity of character which is found to exist among all the nations of this part of the continent, notwithstanding distance of situation, difference of climate, and variation of language. Speaking of the rapid and continual decrease in their numbers, with the total disappearance of entire tribes, he says:

‘The nations of the great lakes and of the Ohio, though they cultivate their lands more than the other tribes, and inhabit one of the most fertile regions of the Continent, have become dependant on the Europeans from their avidity to possess European merchandise. Exposed equally with the other nations to the ravages of the small-pox, and to the pernicious use of spirituous liquors, they approach with astonishing speed towards annihilation. It seems as if they were destined to disappear before the ascendancy of the Whites. Yet a few lustres, and there will remain no other traces of their passage over the earth, than the names formerly given by their ancestors to the rivers, the mountains, and the lakes of their country.’

In describing the obstinate adherence of so many tribes to a wandering and precarious mode of life, in defiance of all experience, the Colonel is represented to have adopted the idea that the native Americans are beings of an inferior order to Europeans: ‘their constant aversion to labour (he says) and to a settled life, their improvidence, their habitual want of reflection, all seem to prove a defect in the measure of their intelligence; and are they not to be considered as insurmountable obstacles, which invariably oppose, and ever will oppose, their progress towards a better state?’ After having enumerated instances of their insensibility to improvement, he adds:

‘These circumstances evince that their intelligence is less capable of perfectibility than ours.—During the space of one hundred and seventy years that we have known these people, has there been seen among them a single individual who has shewn a spark of that celestial fire which gives birth to useful ideas and grand conceptions? No: their commerce with us, though it has diminished their wars, their habits of vengeance, and their *cannibalism*, has not communicated to them a taste for new pursuits; they are not yet sensible of the advantages which result from the exclusive possession and cultivation of a field; they conceive not the pleasure of planting a tree, nor the yet greater satisfaction of seeing it grow, and bring forth flowers or fruits; neither do they understand that instinctive attachment which is felt by all other people for the place of their birth: like the beasts of the forest, they quit it without regret, to erect elsewhere their temporary wigwams.’

Much

Much of this censure is certainly dictated by prejudice and fancy; and it is also inconsistent with the details given in the sequel. While a country is so thinly inhabited as to allow room for great choice of situations convenient for subsistence, a wandering life seems most natural. When a piece of land is impoverished, or forsaken by game, another presents itself. Few among the native Americans can have knowledge or even a thought of the place at which they first saw the light: but their removals, it is well known, do not preclude attachment to their country; strong instances of which are related even in this work.—A wandering mode of life also affords little chance for permanent improvement. When the inhabitants of a country increase, lands become appropriated: what is not occupied is soon subjected to private claims; and the increased difficulty of acquiring a new settlement fixes the inhabitant to his own particular spot. Thence may be dated the commencement of progressive improvement in the modes and conveniences of life; that which one discovers another adopts; and the invention, if worth preserving, becomes general. Then, likewise, foresight and care for the future become indispensable. Few, indeed, of the native Americans have been placed in such circumstances: but those few exemplify the truth of this reasoning. M. DE CREVECOEUR, in his *Lettres d'un Cultivateur Américain*, has given the following account of a settlement of native Americans:

“The posterity of the antient natives live on the Isle of *Capoquidick*, which is divided from Martha's Vineyard only by a small canal. Their forefathers, in their concessions of territory, reserved to themselves this asylum; and a law of the Massachusetts forbids any one to buy these lands, even should the Indians wish to sell. The natives whom I have seen at *Capoquidick* seemed to me entirely European by their decency, their neatness, and their industry. They are in nothing inferior to the other inhabitants. They appear, like them, laborious and religious.—Similar to the Europeans, the young Indians of this isle go frequently to Nantucket to seek employment in the whale fishery. They live in peace, subject to the laws of the country. I have nowhere seen so much union and good neighbourhood: they seem to have no other ambition than that of maintaining decently their wives and children; and I perceived under their roofs plenty, the conveniences of life, quietness, and peace. They cultivate their lands with judgement and skill.”

This surely is a state of improvement; and very high, if improvement is to be measured on a scale of rational happiness. We shall not argue whether sparks of celestial fire are visible in this description: but it is not to be objected against the tribes in the most savage state, that they are destitute of those energies which lead to great good or great evil according as they

are directed. The dialogues, which the author has introduced in the course of the work, exhibit no symptoms of weakness of intellect; on the contrary, they manifest such adroitness and force of expression, as only a small portion of human beings can display even in the most improved nations.

It is proper here to advertise the reader that a large, and the most entertaining, part of this publication is occupied by descriptions and details concerning the native Americans; and we imagine that we shall not displease, if to this subject we principally direct our attention,—especially as much of the information on other topics, here collected, has appeared in travels of a later date.

Having so far entered into the discussion of the character of the American Indians, we shall make an extract from Colden's *History of the five Indian Nations*; which affords proof both of their capacity, and their readiness to profit by instruction and advice, when convinced that their benefit is sincerely intended:

“A Missionary was sent by Queen Anne to reside among the Mohawks; she likewise sent furniture for a chapel; the Common Prayer, or at least a considerable part of it was translated into their language and printed: the minister however being naturally a heavy man, had but small success; and his allowance being discontinued on the Queen's death, he left them. Many years past without their having a teacher, when a young man, out of zeal, went voluntarily amongst them. He set up a school to teach the children to read and write their own language, and they made surprising proficiency considering how little their master understood the language. I happened to be in the Mohawk country, and saw several of their performances;—I had lately a letter from him dated December 1641, in which he writes as follows: “Drunkenness was so common, that I doubt whether one grown person of either sex was free from it: very often forty or fifty were drunk at a time. I found they were very fond of keeping me among them, which I made use of to good purpose, threatening them with my departure in case they did not forsake that vice, and frequently requiring a particular promise from them singly; by which means, (through God's blessing) there was a gradual reformation, and I know not that I have seen more than ten or twelve persons drunk among them this summer. They have left off divorces, and are legally married. They are constant and devout at church. They have not been known to exercise cruelty to prisoners, and have in a great measure left off going a fighting, which I find the most difficult of all things to dissuade them from.” An excellent example this is of what may be effected by the exertions of an individual, who is resolute in the pursuit of good.”

The work of M. DE CREVECOEUR gives credit to the natives for dispositions naturally good, and for manners kind and affectionate in their domestic life. It would be more just, also,

to ascribe the small progress which they have made towards civilization, to the strength of their prejudices, than to defect in their intellectual powers. "Why should we do that which our ancestors never did? Were we to cultivate the earth, we should become less courageous. No longer used to the chase, we should not be able to endure hardship, and should shortly forget the use of the tomahawk. For thee, European, return to thine own country, and there cultivate thy small grains. Leave us to live as our ancestors have lived. The sun rises and sets, and the winter succeeds to the summer, as in their time; in Nature, nothing changes; why then should we change?" Such, according to the representations of the present writer, is the language which they hold.—Faint and partial have been the attempts of Europeans to civilize the native Americans: but active and earnest have been their endeavours to corrupt them by presents, to involve them as parties in quarrels in which they had no interest, and to encourage them to the commission of acts of barbarity.

Dreams are considered by the Indians as prognostics meriting serious attention; and it is esteemed a compliment to wish them happy nocturnal visions. The following anecdote appears as having been related to Colonel Crawgham by Sir William Johnson:

"One day, (said Sir William,) *Nissonassou*, an old Mohawk chief, came to me and said, "My father, I dreamt last night that you had given me a fine gold laced scarlet coat, and a laced hat." "Do you speak truth to me?" said I—"Yes, on the word of a Sachem," replied he. "Well then, you shall not have dreamt in vain: I will give you both the one and the other." The next day, having invited him to breakfast, I said to him in my turn, "*Henriques*, I likewise dreamt last night." "What have you dreamt, my father?" demanded he. "I dreamt (said I) that you had given me a little patch of land, called *Acserouni*, on the *Tianaderba*." "How many of thy acres is this little patch of land?" "Ten thousand," answered I.—After some minutes consideration, he said,—"Well, like me you shall not have dreamt in vain; I give you this patch of land: but do not dream again, my father." "And why not, *Henriques*? Are not dreams involuntary?" "Thou dreamest too hard for me," said he, "we should shortly have no land left."

The author has introduced Dr. Franklin, as Governor of Pennsylvania in 1787, giving his opinion on the origin of the North American tribes. Those who inhabit the two Floridas, and the Lower Louisiana, he believes to have come, according to their own traditions, from the mountains of Mexico; and the Esquimaux are supposed, in the speech attributed to the Doctor, to have migrated at a very remote period from the North of Europe. Respecting the other tribes, after several

conjectures, without adopting any, he says that "the warm climates, abounding in the natural fruits of the earth, have necessarily been the cradle of human nature. It is from the bosom of these favoured regions that the exuberant portion of the first societies have insensibly spread themselves over the rest of the earth."—Some of the ideas and expressions here attributed to Dr. Franklin appear to us rather eccentric, and tinged with a levity which is not well suited to a character whose reflections were in general so thoroughly matured.

The first journey described in these volumes is from *Shippenburg*, a small town in the county of Cumberland, to *Onondaga*. It is written in the first person, and is said to have been undertaken by the relator in company with a gentleman from Europe, for the purpose of being present at a grand council, announced in the *New York Gazette*, which was to be holden there by the chiefs of several Indian tribes. In this journey, and in other travels contained in the present work, it has been the author's principal delight to describe new settlements, and lands in their first state of improvement; with which descriptions, are frequently interwoven the history of the cultivator. The two qualities, which the writer esteems most necessary in a settler, are the love of labour, and a conciliating and neighbourly disposition. In the *American Farmer's Letters*, M. DE CRÉVECOEUR has the following remark concerning the diligence and industry of new settlers: "Whence the difference arises, I know not; but, out of twelve families of emigrants of each country, generally seven Scotch will succeed, nine Germans, and four Irish."

Reflections on the charms of solitude, and picturesque descriptions, give to these travels an air of romance. "Here (says the writer) I enjoy every moment of my life, far from the tumult and agitation of cities, secure from the danger of bankruptcy or fire, and unexposed to those destructive storms which cover the earth with ruin, and fill all hearts with terror and mourning. In other places, time hangs heavy on a man's hands; here I wish to prolong its duration."—We observe, throughout the volumes, the same disposition towards America, and its inhabitants, which is so strongly expressed in the *American Farmer's Letters*. Both publications are calculated to encourage emigration from Europe. It is true that the difficulties, which the new settler has to encounter, are represented as formidable; but in no case are they allowed to be insurmountable. Every thing is depicted in a state of progressive and certain improvement, and success is asserted to be the invariable attendant on persevering industry. Such, indeed, must naturally be the result, not only in agricultural but

but in every useful pursuit : but those who, by reading these seducing descriptions, are tempted to wish for such sylvan happiness, will do well, before they fix on such a mode of life, to seriously examine whether their dispositions and habits are suited to its attainment, or can be fitted for its enjoyment.

The meeting of Indian chiefs at *Onondaga* is represented to have taken place in the year 1789. Not only the manner and formalities observed in holding the council are described, but several of the speeches are given at length, and also portraits of two chiefs who were most conspicuous in the debates. These last, whether copied from real life or only the creations of fancy, are expressive of the characters for which they are intended.

‘ Seventy-eight persons, Chiefs, old men, and warriors, were seated on their hams round a fire in the middle of a great hall, the sides of which were formed of the trunks of trees, neatly squared. A profound silence preceded the commencement of business. Each with his head inclined forwards, and his eyes fixed on the ground, drew up the smoke from his *oppoygan*, and exhaled it slowly in two uninterrupted columns through his nostrils ; which is regarded as a mark of deep meditation. In the first sitting, they appeared without ornament either of paint or of feathers. Here an artist might have found models for fine proportions of the human frame, where the limbs were put in motion by muscles lightly covered with a species of *embonpoint* unknown among white people, which bespoke vigour, firmness, and health. Their heads and physiognomies were of a peculiar cast, such as are to be found only in the forests of the New World. This assemblage of men almost naked, so ferocious in war, so implacable in revenge, so mild and tranquil in their villages, offered a spectacle that was truly a subject for admiration.’

On the second day, the Assembly was more numerous and more brilliant.—We shall present our readers with a sample of Indian oratory. *Keskatomah*, of the *Onondaga* Nation, having recommended a life of peace, and the cultivation of land ; that marks should be set up on the boundaries of their territory ; and that the introduction of spirituous liquors should be prohibited ; reminds the Assembly of a prophecy of *Koorry-boosta*, (an antient Chief of one of the Canadian nations) that the sowers of grain would extinguish the race of hunters, unless the latter also would determine to cultivate the earth.

“ Already (continued the orator,) have the words of *Koorry-boosta* been verified among the *Pecod*, *Nattick*, *Narraganset*, and many other nations. Behold the country which they occupied ; you will not find a living drop of their blood, nor an existing trace of their villages. They are replaced by the habitations of the Whites, whose ploughs now turn up the ground which contains their bones.”

" No sooner had *Keshatomah* concluded, than *Kochassan*, a young warrior of the Oneida nation, fiercely arose, with his tomahawk in his hand, " If (said he) I have not sooner spoken, it is because I respect age, and not from want of matter. We were hunters and warriors before the arrival of the Whites, and we lived well without stirring the earth about like women. Why cannot we continue so now? It is the cowardly or the idle only who cannot find game. Can a man be brave, resolute, and free from care, when he has cattle and land sown with grain? No: he will be too fond of life to dare to risk it. If war should happen, can he divide himself? How can he manage at the same time the tomahawk and the plough? Those who cultivate the earth pass too much of their time on their bear-skins, with their women. In living like the Whites, we should cease to be that which we are, the children of our God, who has made us hunters and warriors. We should think and act like them; like them become liars, cheats, dependents, fastened to the soil, chained by laws, governed by papers and by writings filled with falsehood. With their fields and their cattle, are the Whites more happy than we are, or do they live longer than we do? What purpose does the money serve for which they are always toiling, but to create the difference of rich and poor, to establish among them crime, malice, and envy? In becoming cultivators, we must have judges to torment us, and prisons with high walls to inclose us; hospitality would take flight. I know not whither, and no more return among us; we should do whatever we were told for money, and no longer have a will of our own. What is a man who cannot go here or there, smoke, sleep, or rest himself, at pleasure? It would no longer be strength, courage, and address which decided the reputation of a man; it would be money, and a full kettle.—If I lose my independence, and find myself obliged to submit to the will of another, I shall retire to the rivers of the west; and shall say to the chiefs of the nations of the Mississippi, that the Oneidas are become, like the bearded Whites, *scratchers* of the earth, and vile day-labourers.—Let us continue to be what we have always been, hunters and warriors. I hope that my opinion is that of the majority of those who hear me, whose blood has not been whitened by the snows of winter, nor chilled by the frosts of age.—I have spoken."

" After a long pause, *Keshatomah* rose for the second time, and said, Brave, but inconsiderate young man, in whose memory to day is yesterday, and to-morrow will be as to day; on whose mind time and events, in passing, leave no traces, like the arrow which flies through the air, or the hawk that pursues its prey; who shut the door against Experience instead of seating him at your fire-side," &c. He then represented to the Assembly that the greatest evil which the nations had suffered had been in the diminution of their number, and the augmentation of that of the Whites; and he concluded with the following sentence—"I have replied to all with which the good spirit has inspired *Kochassan*; he also has inspired me not to reply to that which anger had placed on his tongue.—I have spoken."

It would be unjust to regard the author as responsible for the opinions which we have cited from the discourse of Colonel *Crawghan*, did not the same appear in other parts of the work. In a note, *M. DE C.* says, 'Can it be, then, that their imagination, different from that of other men, rejects invincibly the contemplation of the future; and that, like mere animals, they were destined to fashion their lives according only to the time present? Can Nature have refused them the extent of comprehension necessary to discern utility in what is new? Can it be pre-ordained that they shall never understand husbandry, domestic cares, civilization, morality, and laws? It is very probable.' These reflections, we imagine, were not the result of 'deep meditation.'

The Second Volume opens with an ancient tradition of the *Cherokees*; which, we are informed, was translated from the native language by order of *Attaculla-culla*, (commonly known by the name of the *Little Carpenter*), in 1774, and sent to Lord William Campbell, then Governor of South Carolina.

"From the beginning of time (says the tradition,) the power of willing rested in the head of *Agan-Kitchee-Manitou*. One day, it entered into his thought to descend on the earth, that he might see what was there transacting. In the shape of various animals, he examined the condition of the living part of the creation. After several adventures, he was travelling in the form of a man, reflecting on what he had seen, when he inadvertently fell into a pit which had been lightly covered with moss and brushwood. At the bottom, he found a panther, two wolves, a fox, and *Wabémat*, a native of a neighbouring village." [The Deity then released the quadrupeds, and remained conversing with *Wabémat* till the master of the pit arrived.] "Indefatigable hunter, and brave warrior," said *Manitou*, "save our lives." "What are your lives to me?" returned the hunter—"I have lost my prey, thou art the cause, and I will eat thee, since I am hungry; and am the strongest." "Eat us not," said *Manitou*, "and before sunset I will give thee a fat buffalo, whose skin may serve to cover my unfortunate companion." "Let your companion hunt for himself: I will have the whole buffalo, or I kill." "Be it so." When the promised buffalo arrived, and they were released from the pit, *Wabémat* said to *Manitou*, "Do not go home with this eater of men, but come with me." *Manitou* followed him."

We are then told that the fire of *Wabémat's* hearth burnt bright, but the kettle stood aloof, and some roots roasted in the ashes were the only provisions which he had to offer. On inquiry, *Wabémat*, not without apprehension of incurring ridicule; acknowledged an abhorrence at the idea of feasting on the flesh of his fellow-creatures; and that, though on this account he was regarded as weak and pusillanimous by his neighbours, he had no wish to conquer his repugnance.

"When

- "When I cannot take game (said he) I supply its place with roots; and if my family are satisfied, I am content."—"Wabimat," said Manitou, "bless the moment at which I fell into the pit! Thy temperance and humanity are about to receive their reward; the hour of rétribution is arrived. Do you chuse to wait till death, the time of which is uncertain, shall deliver you from the burthen of life, in order to enjoy the pure, unalterable, eternal happiness of spirits; or to content thyself with the plenitude of such felicity as can be tasted on earth, and which shall begin from this instant?" The good but simple Wabimat wished the hour of happiness not to be deferred. "It is necessary then," said Manitou, "that you cease to be a man. You must part with the faculty of speech, that your felicity may not be disturbed by vain ideas. That gift shall be replaced by accents more simple, but equally expressive and useful. As formerly, you shall be susceptible of love, of conjugal and paternal affection: thy children shall respect thee, and in thine age shall assist thee. The absence of anxieties shall supply the place of many enjoyments; and in order that you may conceive and execute every project necessary to the well-being of yourself and family, memory, foresight, and judgment shall be preserved to you."

To conclude:—Wabimat and his family underwent immediate transformation, and were conveyed to the Lake Michigan, where they appeared as the first family of Amicks (Castors) that existed on earth. From regard to this their divine origin, the hunters, when they find an establishment of the beavers, always allow a certain proportion of them to escape!—How well soever the image of aquatic happiness in northern lakes may accord with the ideas of a North American, we Europeans cannot contemplate it without experiencing, at least, a mental shivering.

There are some expressions in the tradition, as it appears in this work, for which we know not how to give the original credit; though the translation is presented to us with all the formalities of authenticity; "Translated by me, the undersigned interpreter of the King for the Cherokee language, residing at Sinica, June 17, 1774. Adrien O'Harrab." We shall instance the following: "The astonishing perfectibility," said Manitou, "with which the Creator has endowed the understanding of man, &c. &c.—And after all, what is man, this Being so vain and so presumptuous? A living atom, whose generations pass over the earth like the shadow of the clouds driven by the winds. And this earth? a point in the immensity of the universe; one of the smallest globes among the millions of which it is composed." We cannot reconcile such passages with our most favourable opinion of Indian information; and are not a little tempted to attribute them to a love of embellishment.

The

The author has frequently entered into details concerning the management of the American farmers, and their husbandry. In the second volume, we find a curious account of the fondness of animals for salt, and the great advantage made of it by the farmer in governing them.

‘With this bait he catches horses or cattle when necessary, tames those which have been long in the woods, makes himself followed, and, in short, entirely commands their will. In the middle of forests, it supplies the defect of enclosures, by drawing the animals regularly to inhabited places.’—‘Although our animals, which live almost all the year at liberty, are rarely ill, they are sometimes subject to melancholy (*tristesse*): then we find it necessary to give them salt more frequently, mixing with it powdered brimstone and antimony. My grand panacea, especially for my horses, is *assafoetida*.—This appetite for salt does not manifest itself only among quadrupeds; innumerable quantities of wood-pigeons cover our fields twice in the year, in their passage from the interior of the Continent towards the sea-coast, where they go to seek it.—One day, having remarked that my bees frequently settled on spots where brine had been spilt, I placed some grains of salt before their hives. What was my astonishment, when I saw them repeatedly tasting it with eagerness, and carrying it away with them! Before this experiment, I could not have believed that the manufacturers of honey could taste with pleasure an ingredient so different from the nectar of flowers.’

In the journey from the Lakes, a description is given of wooded marshes, some of which are called Bog-meadows. The ground, at the distance of a few feet below the surface, is said to be composed of a tissue of trees ‘overthrown, we know not at what epoch, nor by what cause. In a marsh of five thousand acres, covered with most beautiful ash, maple, and other trees, an experiment was made to determine the quantity of wood beneath a surface of ten square perches. After the growing trees which covered the surface were felled, we dug to the depth of four feet; and it was found that the quantity of subterranean wood greatly exceeded that of the living trees.’

Travellers benighted in the forests of America are said to make a peculiar use of their shoes: ‘of all our clothing, the shoes retain longest the odour of the body. With them, wolves and tiger-cats are kept off during the night, especially when the rain will not admit of making a fire. Placed at some distance on short poles, they become a rampart, under the shelter of which the traveller may securely repose at the foot of a tree. As soon as the animals scent that which announces the neighbourhood of man, they give a howl and retreat.’

The descriptions of travels in this publication appear in a form so irregular, as to discourage any attempt to mention them in a connected

connected series: The author did not propose to fetter himself by method, and we are in some degree obliged to follow his example.

The falls of *Niagara*, the wonders of which have been so often recorded, have likewise their place in this work, and are represented on two plates.—An entertaining account then occurs of a party of the native Americans, who were met in the woods near the border of Lake Ontario:

“They were a mixture of young *Mohawks* and *Cayugas*, who, as well as ourselves, had passed the day in fishing, and were now amusing themselves with telling stories. Next to courage in war, and address in the chase, nothing obtains greater influence among them than this talent. The attention paid in Europe to a sermon, a tragedy, or an academical discourse, is not comparable to that with which these men listen to the recitals of their orators. They have stories both gay and serious. The first are almost always founded on some peculiarity in our customs which appears to them ridiculous; the others are, of adventures in hunting, of travels, or of military exploits.

“One of the Indians having just finished his narrative, I jogged the next with my elbow, saying to him, “Do you not see it is your turn? Rise then, and tell us something.”—This liberty was not well taken, and produced altercation. To stifle, in the beginning, this disposition to quarrel, I said to him, “Will you have any wine?” “I had rather,” he replied, “have that which is six times wine; (meaning brandy) have you any?” “No.”—Another man rising to speak, every one listened with attention.”

Among the stories related, was one of which the subject was the *Land of Dreams*, inhabited by a people of whom the great *Okemaw* was the chief. They lived undisturbed till white, bearded, men arrived among them. Humble at first, the strangers were received with hospitality: but, having once obtained a footing, their manners altered; till, for their usurpations and other offences, *Okemaw* drove them out of the country.

“In a short time, they began gradually to return, and to spread themselves among the villages; of which *Okemaw* being informed, he ordered them to be brought before him:—“Obstinate Whites!” said the Chief, “you deceive yourselves, if you think to do here as you have done in the land of *Nusby-norbays* (by this name, the native Americans distinguish themselves from the Europeans): you shall not corrupt us, with your liquors of fire and madness, to surrender our lands; we are not so easy to deceive. Drink your own liquors; may they destroy ye as they have already destroyed so many brave nations.” One of the white jugglers, more angry than the rest, had the audacity to strike the Great Chief; who coolly said, “Thou hast been ill educated in thy country;” and immediately, with his powerful arm, he threw him down, and laid hold of his hair to scalp him.

him: but what was his astonishment on finding that it did not grow from his head! *Okemaw*, as well as his people, having never seen the like before, involuntarily burst into a fit of laughter, so immoderate as to distract their attention; a circumstance of which the Juggler and his companions dexterously profited, and made their escape, leaving the false hair in the hands of the astonished Chief. They immediately embarked for their own country; and from that time the bearded Whites have been no more seen in *Hoppajewat*, the land of dreams.

* We are also presented with a description of the manner in which the Indians adopt a new member into a family.

In Vol. III. we meet with an account of the remains of pyramids, artificial mounts, and fortifications; that have been discovered in different parts of the Continent; accompanied by two plans of the fortifications of the antient natives, one near Lake *Erie*, and the other on the banks of the *Ohio*, taken on the spot. Whether any of these may vie in point of antiquity with the pyramids of Egypt, cannot be known:—since none of the tribes existing, or with whom the Europeans have had communication, pretend to any knowledge, or even any tradition, respecting their origin. In other respects, they make a small figure in the comparison. There is reason, however, for believing that they were constructed by a people distinct from any of the nations now inhabiting the Continent of North America.

* Many of these works are now covered with trees. Nothing has been found to encourage a belief that these antient people understood the use of iron. Dr. Cuttler, who has carefully examined the oaks which have fallen with age, and likewise those which are yet in their vigour, is of opinion that the latter are a second generation; which idea removes back perhaps a thousand years, the epoch at which these fortifications were constructed.

Where little is known, as in this case, conjecture has an extensive range. Admitting that there have been two and only two generations of oaks, the first might not have made its appearance above ground till many centuries after the spot had been deserted; and the place might not have become a desert till many centuries after the fortifications were erected. The author of these volumes has inserted a letter written by an inhabitant of a colony near the *Ohio* to Dr. Witherspoon, President of the College at *Prince Town*, dated May 1789: from which we have taken the following extract:

“ Mr. Worth tells me also that he has seen, on one of the banks of the *Monongahela*, a rock the surface of which appeared to have been polished with care; and on it were engraven, in six columns, figures of men, animals, birds, and fish: under which were several lines written in characters that were unknown both to him and to those

those who have since seen them. In other Cantons, there have been discovered some tombs containing human bodies, inclosed in coffins of baked earth, varnished; the arms and legs being in a kind of cylinders of the same earth, joined to the body of the coffin.'

A narrative by Mr. Isaac Stuart is likewise inserted, which was published in the Charlestown Gazette for March 1782. The heads of this narrative are, that, eighteen years anterior to that date, Mr. Stuart was taken prisoner by the Indians, with other Whites, most of whom were massacred. He had the good fortune to be adopted: which event took place at a village situated on the *Wabash*. After having lived there two years, a Spaniard arrived, who said he came from *New Mexico*, and was travelling to make discoveries. He wanted two rowers, and obtained from the Chiefs permission to take Stuart and a man named John Davey, a native of Wales. They embarked, and went down the *Ohio* and the *Mississippi* to the mouth of the *Red River*, up which they proceeded seven hundred miles, and entered a branch called *Post River*; where they found themselves in the middle of a nation of White People with red hair.—On the day after their arrival, John Davey said that these people spoke the language of his country, and that he was determined to remain among them. He learnt from them that their ancestors had first settled on the borders of that river, a short time after the conquest of Mexico by the Spaniards.—Mr. Stuart also mentions that they shewed him several rolls of parchment, on which were a great number of characters written with blue ink: but not understanding the Welsh, and Davey not being able to read, he could give no account of their contents. After having passed some time among these Welsh, Mr. Stuart and the Spaniard departed. In the remainder of his travels, Mr. S. saw many strange things, and at length arrived safely in South Carolina.—There appears to us so little of probability in any part of this narrative, that we do not imagine that it will much contribute to the support of the accounts of Welsh discoveries in America.

M. DE CREVECOEUR has taken notice of several manufactures and commercial establishments; and he has drawn up a table to shew the progress of population in the United States, in which he estimates the annual increase at three and one half per cent.; the population for 1790 being stated at four millions, and for the end of the year 1800, at 5,642,142.—Of the increased value of lands, he says; 'Those which four years ago were estimated at two piastres per acre will now sell for three, or three and one half, and some for five, according to circumstances of fertility or situation.

In

In general, it is considered that lands which are inhabited in the proportion of twenty people to the square mile are worth fourteen piastres, or three guineas per acre. The increase of specie, and the troubles in Europe, have much contributed to this augmentation of price.—The lands in the United States which, as yet, (in 1796) are neither occupied nor sold, are computed at 431,662,336 acres, more than one half of which lie beyond the *Ohio*. The author has also constructed a table, to exhibit the probable period of time at which the population of the States shall have augmented to the proportion of twenty persons for every square mile of territory, on the supposition that the annual increase will continue to be at the rate of $3\frac{1}{2}$ per cent. This degree of population, he estimates, will be attained in the year 1834; the number of people then being stated at 18,496,150: by which time, he reckons, there will be no vacant lands remaining. He cannot surely imagine that, with a population of $18\frac{1}{2}$ millions, all the lands will be occupied: it would be supposing the quantity of occupied land to increase in nearly a four-fold proportion to the increase of people.—He informs us that the quantity of cleared land, in the whole extent of the United States, is estimated at 31,602,000 acres! Whether this be for the year 1796 or 1798 is not made very clear: in either case, it is not more than $6\frac{1}{2}$ acres per head; whereas, if the whole (463 millions of acres) should be occupied by $18\frac{1}{2}$ millions of people, it would be in the proportion of 25 acres to each person.—This estimate seems intended to say, “Make haste and buy, while there is yet land to be sold!”

Many circumstances, both of a public and a private nature, are here related of General Washington, of whose great character the author appears to be a sincere admirer. To him, the dedication of the work is addressed, though published so long after his death;—or rather it is an *Eloge* on his memory, in the form of a dedication.

Those readers, who have seen the *Lettres d'un Cultivateur Américain*, will think that some parts of that publication bear too great a resemblance to the present. We have already remarked the similarity of sentiments; and the council at *Onondaga*, also, cannot but remind us of the debates among the Indian Chiefs, on the proposition of *White Eyes* recommending the cultivation of lands, as represented in the former letters.—In his reflections, the author sometimes falls into a species of sentimental declamation, which seems more indigenous to the writers of the Continent than to those of this country; and which perhaps is more captivating in other European states, than among the generality of English readers. These, however,

are

are slight defects, and may well be tolerated in a work which affords so considerable a portion of entertainment.

M. DE CREVECOEUR has occasionally introduced subjects unconnected with the description of the North American provinces. An antient castle in Germany is described in the style of our modern romances; and a history is related of *Don John of Braganza*, (said to be a son of King John the fifth of Portugal, by an English lady,) who was several years midshipman on board a British ship of war. The interest of this story must depend on the degree of credit which may be attached to it: if a relation of facts, it is not less curious than interesting.

We shall close our account of these volumes with remarking on an opinion which the author countenances respecting the first discovery of America. The last chapter describes a conversation, in which a gentleman, speaking of the publications in his possession relative to this great discovery, says, "There has not appeared in Europe a chart of this country, which is not to be found in my collection. I have even a copy of that which the Chevalier *Martin Béhem* made for King John the Second of Portugal, more than 300 years ago."—In a note at the end of the volume, an account is given of *Martin Béhem*, which states that

• In 1484, he discovered Brasil, and likewise the Straits of *Magellan*. His letters, preserved in the archives of his native city, dated 1486, speak of his discoveries, and voyages, undertaken six years before that of *Christopher Columbus*. It was *Martin Béhem* who gave to this celebrated navigator the first idea of a Western Continent. As to *Magellan*, he did not form the project of passing the strait, till after having seen, in the hands of King John, a chart of that part of America which *Béhem* had drawn and given to the King.—*Béhem* returned to *Nuremberg* in 1492, and there caused a globe to be constructed, on which he delineated the discoveries that he had made, and to which he had given the name of the Western Land. This globe was finished in the same year that *Christopher Columbus* departed on his first voyage.

• Arguments, if necessary, could with ease be produced to shew how remote this relation is from probability: but, in assertions respecting facts, evidence demonstrates better than argument. A description of the terrestrial globe made by *Martin Béhem* in 1492; at *Nuremberg*, has been published by *M. Murr*; and likewise a translation from the German into the French language, by H. I. Jansen, Paris, intitled *Notice sur le Chevalier M. Béheim; par M. de Murr*; with a plate representing part of his globe, from the Canary Islands westward to China. In this space, no American Continent appears: but the sea is represented as affording a clear passage (a few islands excepted) from Europe to *Cipangu*; i. e. Japan.

ART.

ART. II. M. DE LA HARPE'S *Lyceum, or Course of Lectures on Ancient and Modern Literature.*

[Article continued from the last Appendix, p. 480—492.]

PREFIXED to the IVth volume of this work, is an introduction of considerable length, including a narrative of the state of literature in Europe, from the age of Augustus to that of Louis XIV.; which was delivered as a lecture, at the *Lyceum*, in 1797.

‘We have advanced (says the eloquent Lecturer) rapidly through those marvellous ages of Greece and Rome, which have been periods of the glory and prodigies of the human mind. We have travelled among the great monuments of which time has at least respected a part sufficient to make us for ever regret the rest. After having been so long buried in that vast and profound darkness and barbarism which obscured the earth, till the first dawn of reason, taste, labour, and erudition, they were at length cleared and disincumbered from the rubbish by which they were covered and rendered unintelligible. Genius, when awaking as from a long sleep, could not but behold them with that enthusiasm which aspires to equal, or at least to imitate what it admires; and at length satiety, paradox, and ill-directed competition, have insulted them with proud ingratitude, at the period at which the mind grew subtil and contentious, at the same time that great talents became rare; at that period at which the presumption of judging surpasses the want of enjoyment; at which, whatever has been done is depreciated in proportion as it becomes more difficult to excel; at which, in short, scarcely any other taste is left, than the blind love of novelty, of whatever kind it may be; a perverse and depraved taste, which calumniates the past, corrupts the present, and, mistaking every principle of what is excellent and beautiful, hardly leaves any thing to hope for the future.’

After these severe reflections on the modern rage for discovering that whatever was and is *is wrong*, the censor proceeds to recapitulate his former lectures; and to remind his audience of the excellence of Homer and Virgil in the epopee; of Sophocles and Euripides in tragedy; of Pindar at the Olympic games; of Horace at the court of Augustus; and of the eloquence of Demosthenes and Cicero at Athens and Rome, in support of that republican liberty which has been so ridiculously counterfeited in our own times, and exchanged for factitious servitude and hypocritical tyranny.

‘In descending to the next age, a declension is already visible. The brilliant passages in Lucan, all the wit of Pliny and Seneca, and the points of Martial, serve but to heighten the characters of Cicero, Virgil, and Catullus. Greece could now boast only her Plutarch, and Rome her Quintilian. Rome, however, more happy than Greece, produced one other writer of a higher class, equal if not superior to all whom the best periods of her history could produce,—

TACITUS, who stands with head erect like a lofty column among ruins.

‘Beyond this period, what shall we find? Nothing but deserts and darkness!’—

‘During the happy times of the Antonines, a few men of wit and taste did indeed appear, such as Longinus the critic; and Lucian the satirical moralist; afterward, historians of the second order, such as Amianus Marcellinus, Herodian, and others: but in eloquence and poetry, Greece and Rome were reduced to declaimers and sophists: the one selling panegyrics, and the other plunged in scholastic disputes.’

This censure, however, is confined to Pagan eloquence: for, in spite of the Jacobins and infidels with whom he was surrounded, the lecturer boldly celebrates the eloquence of the Greek fathers, with all the zeal and courage of a Christian martyr.

In this introduction, the author has painted the horrors of the French revolution in blacker colours than we should have thought would be tolerated in a public assembly, or even in a printed book, at Paris, where so many of the principal agents still exist. After this digression, he continues, by observing that Charlemagne, perhaps, retarded the progress of the French language, by giving the preference in his vast dominions to the Roman tongue; which became in France the general language for all public acts, till the time of Francis I. This prince confided to the clergy the preservation of MSS. and the Greek and Latin languages; all which, without them, would have been lost for ever to Europe, and perhaps to the whole earth. The first attempts at writing in a modern dialect originated in Italy, with Danté and Petrarch in poetry, and Boccaccio in prose. These authors are still generally read, and are the standards of Italian. In no other country are these first attempts intelligible, and worth preserving.—The lecturer then remarks that the invention of printing, in the middle of the xvth century, was productive of infinite good and evil; and having discussed both these effects very fairly, he proceeds in his narrative of the progress of letters. The first works, he says, which issued from the press, were dictated by the Latin muses! Vida, Fracastorius, Politian, Sadolet, Erasmus, Sanazarius, and a crowd of others, manifested in their writings not only genius, but the good taste and elegance of Roman antiquity. Soon afterward, by the fall of the Grecian empire and the rise of the Medici family, a taste for Greek literature and arts was added to the Roman; and such models in poetry, architecture, sculpture, and painting, were produced, as rivalled the age of Augustus.—Here the orator exclaims against the rapacity

rapacity and pillage of his countrymen, in robbing Italy of her national ornaments.

' All Europe has uttered a cry of indignation ; a cry which has been heard and repeated even by ourselves, when we have seen this country robbed of its monuments which were the public property of the inhabitants, and the objects of their particular worship. It has been said that, among polished people, neither victory, nor even the example of the Romans authorized these spoliations ; which are always odious, and are equally condemned by policy, and by the morality of nations.

' The magnificence, taste, and patronage of Lorenzo de Medici, and his family, excited an ambition in the rest of Europe to cultivate these arts ; and the celebrated Roman Pontiff Leo X. caused ancient MSS. to be sought, which were multiplied by the press, enriched by instructive observations, and illustrated by learned commentaries. It was now that the thick and injurious veil, which barbarism had spread over the beauties of antiquity, was torn and thrown aside.'

Ariosto, Tasso, Trissini, Guicciardini, Fra Paolo, &c. are next mentioned as happy cultivators of their own language, and of the taste of antiquity. The author then slightly notices the literary favourites of other countries ; who, stimulated by the success of the Italians, " lisped in numbers," and in the prose of their own dialects. These are often characterized by a single word, which calls to the recollection of his readers their principal excellences or defects. He allows more merit to Shakspeare than has been granted by most of his countrymen, who all see his irregularities, but neither can nor will understand and feel his beauties ; and when he introduces Copernicus, Kepler, and Galileo, at the head of mathematicians and astronomers, he very liberally says :

' England, destined soon to become the legislatrix of the world in the sublimer sciences, and in sound metaphysics, might early have opposed to all the great men of other countries whom I have named, the Chancellor Bacon, one of the boldest and most independent reasoners and experimental philosophers that any age or nation can boast ; and who owes every thing to his own profound contemplation and view of nature, as if she had never been explored before. It was he who, according to the title which he has ventured to give to his immortal book, (*Novum Scientiarum Organum*) taught philosophy not to venture to advance a single step, without leaning on the crutch of experiment ; and it is by following these lessons that the study of nature is become all that it can or ought to be, the science of facts ; the only science permitted to man, who was so long condemned to visionary reasoning about causes, by a proud forgetfulness that he was ordained by his nature to remain ignorant of them.'

On the minor poets and prose writers of his own country, the lecturer dwells but little, previously to the age of Louis XIV. but he afterward becomes very diffuse, and very eloquent; lamenting pathetically the destruction of many noble productions of art, monuments, and public buildings, during the horrors of revolution,—and, 'which is still worse, the corruption of the morals and consciences of the people.'

Having given so ample an account of this *Introduction* to the 17th Vol. we can allow but little space to its contents; which concern a part of the French literary history that is so recent; and has been so often written, that the out-line is well known, even to shallow and superficial readers. M. DE LA HARPE's criticisms, discriminations, and reflections, however just and ingenious, and however amusing to his countrymen, must also be less interesting to English readers than his analysis of ancient authors enshrined in dead languages; concerning which the whole learned world is equally curious.

In tracing the literary annals of France, during the reign of Louis XIV. the lecturer begins with poetry; characterizing the productions of writers who preceded and were subsequent to *Marot*, down to the time of *Corneille*. He then treats of the French theatre in general, and of *Pierre Corneille* in particular; enumerating also the tragic poets who flourished before him. The rest of this Vol., and part of the next, are occupied by a parallel between *Corneille* and *Racine*, and an analysis of their principal dramas: which will teach the writer's countrymen how to *hear*, and foreigners how to *read* these authors. M. DE LA HARPE seems to hold the scales steadily and fairly: but the nation itself is divided in its opinions concerning the merit of these poets; and who can satisfy partizans, but those who flatter their prejudices?

Vol. v.—After having employed half of this Vol. in analyzing the remaining TRAGEDIES of *Racine*, and pursuing his parallel between the two great dramatists, the author proceeds to speak of *Rotrou*, *Duruy*, *Thomas Corneille*, *Quinault*, *Campistron*, *Duché*, and *La Fosse*; and then turning to COMEDY during the same reign, after a spirited introduction, and a chapter on comedy in general before the appearance of *Moliere*, he concludes this Volume by a very amusing section on the works of that high priest of *Thalia*.

The account of *Moliere* and his writings is very amusing; and this is a part of M. LA HARPE's publication which, if we could afford room, we should wish to insert; but the work is so voluminous, and our account of it is already swelled to such an uncommon bulk and number of articles for a single production, that we must desist.

Vol. vi.—Of comic poets of an inferior order in the reign of Louis XIV. viz. *Quinault*, *Baron*, *Brueys*, and *Palaprat*, &c. These two last wrote in conjunction, like our Beaumont and Fletcher; they were the authors of *l'Avocat Patelin*, or rather the modernizers of that farcical comedy, which M. *Le Texier* now reads in London with so much *vis comica* and effect. *Boursault's Esope* has been imitated, or rather translated, by Vanbrugh, and his obligation was acknowledged: but we often, in these lectures meet with jokes, and even scenes, with which our countrymen have made free in a surreptitious manner.—The travels as well as the comedies of *Regnard* have furnished a very entertaining article.—The French are with reason proud of *Moliere*. His best plays certainly surpass in wit, humour, conduct, and character, all other comedies antient and modern of which we have any knowledge; and they have supplied materials for the comic writers of most nations; especially the English. From his productions, we have the Miser, Non Juror, Country Wife, Plain Dealer, *Æsop*, the Mock Doctor, Cheats of Scapin, &c.

In the Volume before us, after *Regnard*, we have an account of the plays of *Dufrény*, *Dancourt*, and *Hauteroche*:—of the operas during the reign of Louis XIV. written by *Quinault* and set by *Lulli*:—of the odes of *J. B. Rousseau*, regarded by the French as the most finished lyric poetry in their language:—of *Boileau*, his satires and epistles, (this chapter contains some excellent criticism, in which the superior merit of this great poet, critic, and satirist, is fully displayed):—of *La Fontaine*, his fables and tales, (another excellent chapter); then of two writers of fables and tales in the manner of this inimitable author,—who, *pède claudo*, do not walk, but limp in his steps;—and then—of pastorals, and different kinds of light poetry.

VOL. VII. contains the second part of the age of Louis XIV. including eloquence, history, philosophy, literature, &c.

On forensic eloquence, or the eloquence of the bar, during this celebrated reign, M. DE LA HARPE is very severe. *Patru* and *Lemaitre* are the only two pleaders whom he has thought worthy of being named; and it is merely to censure their style of eloquence that even they are thus distinguished.

Pelisson's address to Louis XIV. in favour of the disgraced minister *Fouquet*, his friend and benefactor, is regarded by the lecturer as the most beautiful and impressive piece of eloquence that was produced during the XVIIIth century: 'but this (he says) did not properly belong to the bar, and was not the work of a professed civilian, advocate, or pleader, nor even a juridical memorial; it was the labour of courageous friendship, defending an unfortunate individual who had been powerful;

the fruit of a true oratorical talent, animated by zeal and danger, and rendered memorable by the greatness of the occasion.'

The next section concerns encomiastic eloquence, addresses to sovereigns, public speeches in national assemblies, &c.

Section III. *Eloquence of the Pulpit, and Funeral Orations.*—M. DE LA HARPE has celebrated only the abilities of father Bourdaloue among plain orthodox preachers: but the funeral orations of Bossuet, Flechier, and Massillon, are duly noticed, and their beauties and defects are pointed out with nice discrimination and sound judgment. He has also given such extracts from them, as will make every reader of true taste and moral feeling eager to peruse the whole.

Chap. II. Sect. I. *History.*—The author's critique on the French historians of the period under consideration is admirable. Whether his remarks be slight or profound, political, philosophical, or moral, they are always lively, just, and pleasing; and though a loyalist, he conceals not the political errors of kings, nor the defects of the former government of France. When court dependants became historians, adulation guided their pens; and when Protestants were the annalists, they were so thoroughly determined to allow nothing to be right in a Catholic state, that they deviated from truth as widely as the flatterers. Impartial history can be expected only from strangers; and they are ignorant of facts, and unable to trace events to their source. M. DE LA H. seems to have some weighty charge to bring against every historian of his country.

Section II. *Memoirs.*—On this subject, the lecturer confines his remarks to political memoirs; such as those of Cardinal De Retz, La Rochefoucault, Torcy, &c. The character of De Retz is drawn with great ability.

Chap. III. Sect. I. *Metaphysics.*—Descartes, Pascal, Fenelon, Malbranche, Bayle.—Perfectly acquainted with the writings and principles of these authors, the lecturer is very eloquent in describing their several excellences and imperfections; defending neither *philosophes* nor fanatics, when they abandon reason as their guide. 'Fanaticism (he remarks), whether religious or philosophical, is the child of pride, a violent and terrible power! Reason, on the contrary, even when she deceives us, is a mild and tranquil power, free from passion, and never inducing men to quarrel with each other.' The author appears to be a very fair and rational metaphysician; pleads the cause of religion against atheists; and confesses his ignorance, and the ignorance of human nature, concerning certain difficulties which are, and ever must remain unsolved. 'The works of God (he says) are finite only to himself; they will ever be infinite to us, not merely in the vast structure of the heavens, which seem to present

sent to our bounded vision an image of omnipotence, but in the imperceptible structure of the insect which borders on nothing, and terminates the scale of beings.'—This, however, it will be said, is only good deism: but, in reviewing the funeral orations of the three great divines of his country, M. DE LA HARPE is a very pious and orthodox Christian.

Many pages are properly bestowed on *Bayle*; whose amazing extent of knowledge, and whose clear and natural style, together with the quantity of curious articles which he has amassed together, must always procure for him a shelf in the libraries of those who furnish themselves with books for instruction. The lecturer resolutely defends him from the charge of atheism, and makes him almost a Christian. 'Though in his numerous writings he carries freedom of thought much farther than any author had gone before him, yet this was done with such art and precaution as still left a doubt whether it proceeded from a fixed incredulity, or was the sport of a mind naturally prone to dispute and controversy. It is certain that, except in these metaphysical excursions, where he delights in sustaining all kinds of systems, he never speaks of the objects of Revelation but with a respect which appears to be sincere; and with a tone of affirmation which, if false, would form a degree of hypocrisy of which he seems to have been incapable.'

Section II. *Moral Writers*.—Here the author discusses and defends the merit of *Fenelon's Telemachus*, speaks of the *Moral Essays* of *Nicole*, the *Institution of a Prince* by *Duguet*, the *Maxims* of *La Rochefoucault*, (among which he disputes the truth of many,) and some of those of *La Bruyere*, whom he regards as a better moralist, and a far superior writer. Lastly, he characterizes *Saint Evremond*, whose writings had great reputation during his life, though they have almost ceased to be read in late years; several of which are here pointed out as ingenious and pleasing.

This volume is closed by short sections on *Miscellaneous Literature*;—*Romances, Tales, Letters, Translations, and Criticism*.

Vols. VIII. IX. and X. are wholly occupied by the works of *Voltaire*.

Prefixed to Vol. VIII. we have a bold and perilous discourse, pronounced at the Lyceum in the year 1794, against the revolution, its heroes, and its horrors; which occupies 40 pages. The author then devotes 160 pages to a defence of the *Henriade*, which, with all his friendly partiality, he cannot mould into a perfect epic poem. He is obliged to allow some of its defects: but he endeavours to compensate for them by pointing out the fine lines which it contains. He then discusses *Voltaire's* other

poems, heroic and heroi-comic, didactic, philosophic, descriptive, amatory, mythological, &c.

VOL. IX. *Sequel of the XVIIIth century.*—Of the *Tragedies of Voltaire*.—These are all analyzed, and a history is given of their first reception, and subsequent favour or neglect. This part of the present work has been ably reviewed by M. Geoffroi, a powerful critic; who has pointed out and censured the lecturer's partiality to *Voltaire*, at the expence of *Racine*.

VOL. X.—A continuation of the dramatic works of *Voltaire* entirely occupies this volume. Here M. DE LA HARPE has analyzed and commented on each of the tragedies of this fertile writer, which had not been examined in the preceding volume, and has given us his opinion of the style of each. The merit of *Voltaire* as a dramatist is here estimated somewhat higher than we have been accustomed to place it: but we shall not dispute with the French on the merit of their own writers, which is always well argued and discussed by themselves, before their rank is settled in their national literary republic. Perhaps no author of any country had ever more admirers and more enemies than *Voltaire*; and commendation and reproof are equally his due from a large portion of mankind. As an epic poet, a dramatist, an historian, a novelist, an essayist, and a miscellaneous writer, he certainly merited universal applause: but the impiety and licentiousness of some of his productions excite the strongest censure from every friend to religion and virtue. His wit, humour, fancy, and, in his smaller pieces, the good taste of his sentiments and the elegance of his versification, are above all comparison and all praise; and so various were his talents, that there is scarcely any species of writing in which he has not left such specimens of his abilities, as almost intitle his genius to the claim of universality.

M. DE LA HARPE was the *élève* of *Voltaire*, and long intimately connected with him and his brother wits and *philosophes*; and though he has for some time quitted the latter sect, he still appears as his eulogist and champion, *à toute ouïtrance*. As a tragic writer, however, though four of his plays (*Zaire*, *Alzire*, *Mérope*, and *Mahomet*,) are unanimously allowed by his countrymen to be excellent, yet the rest of his numerous dramas are so inferior to these, that few natives of France will permit him to rank on a level with *Racine*. The parallel lately drawn by M. Geoffroi, between these two poets, seems to have taken *Voltaire* out of the hands of his partizans, and put him in his right place; which is, however, beneath that of no other French dramatic writer, except *Cornille*, the father of their stage.

Soon after the decease of *Voltaire*, *Linguet* proposed to publish an edition of his works, purified from all profaneness and licentiousness; such an edition as should contain nothing that could offend the most delicate or moral mind, disgrace the library of the grave or the toilette of the fair, or that ought to be locked up and concealed from youth. Were we to take away from some depraved writers all that is offensive to decency and good morals, we should annihilate them: but this is not the case with *Voltaire*.

We must reserve our notice of M. DE LA HARPE's XIth and XIIth Vols. for another article.

[To be continued.]

ART. III. *Correspondance Littéraire, &c.*; i. e. Literary Correspondence, addressed to his Imperial Highness the Grand Duke, afterward Emperor of Russia; and to the Count *Andrew Schowalow*, Chamberlain to the Empress Catherine II; from 1774, to 1789. By JOHN FRANCIS LA HARPE. 4 Vols. 8vo. Paris. 1801. Imported by De Boffe, London. Price 1l. 4s. sewed.

WE have always regarded the late Empress Catharine as a wise princess, and a great stateswoman; though we had no reverence for her private character. We admired her virtues in the plural number more than in the singular. Her great abilities and enlarged views enabled her to govern, during many years, the most extended empire and uncivilized people in Europe; and she held private correspondence with almost all persons of great abilities on the globe, whose fame had come to her knowledge. *Voltaire*, *Diderot*, and *D'Alembert*, were her confidential correspondents and extra cabinet counsellors; and they flattered her ambition by recommending to her the destruction of the Turkish empire, in order to restore the Grecian republics, and re-establish the rights of man. It does not appear, however, that the poet, the philosopher, or the mathematician, ever ventured even to hint at the emancipation of her own enslaved subjects.

Voltaire was a sort of confessor to her imperial majesty: *D'Alembert* and *Diderot* she enlisted by benefits, and by offers of great establishments in Russia; and LA HARPE she engaged as a lively young writer and amusing correspondent for her son Paul, in order to divert his attention from that government which she had usurped from him: foreseeing, perhaps, what a wild sovereign he would become, if allowed to possess his birth-right. The publication before us does not present us with any answers to these letters from M. LA HARPE. They consist, indeed, of mere literary gossip, totally free from politics;

tics; and it does not seem as if the rivalry, quarrels, successes, or miscarriages, of the writers of a distant kingdom, could contribute much to enlighten a young prince in the art of government; or furnish subjects of reply from a Grand Duke, who was heir to a vast empire, and who had many things to learn of much higher importance than the literary cabals of Paris.

As prefatory matter, the author has given a dialogue between himself and a young man, who tells him what the world said, and would say, of this work;—of his having apostatized from *philosophism*, and yet having published letters that were written while he was in close connection with the High Priest of infidelity and his subordinate *clergy*. M. LA HARPE defends himself as well as he can. He denies that he ever was an Atheist, or pushed his zeal for the principles of Democritus or Epicurus so far, (though an unbeliever,) as to exercise that spirit of proselytism which was always the rage of the sect, and which he has often ridiculed. 'Voltaire, (he says), in his language, which was always a parody on the Scriptures, constantly reproached my want of zeal for the house of the Lord.' Moreover, the Lycæum lecturer promises that, in his *History of Philosophy*, which is to terminate his course, he will disclose all the mysteries of the literary Pandæmonium.

The first letter in this collection, dated in 1774, turns on jurisprudence, and gives an account of three remarkable trials that had then occupied the Parisian public mind. The letter is long, and the subjects in litigation are not very interesting to English readers; yet the writer has such vivacity of style, and facility of expression, that whoever begins to read any of his narratives will proceed. Two of these trials, indeed, concern individuals whose names are well known to all Europe: viz. *Beaumarchais*, the celebrated author of *Figaro* and the *Barbier de Seville*; and *Linguet*, a perturbed spirit, and famous journalist, who was in England previously to his residence in the Bastille; and who, on his enlargement, having quarrelled with the whole body of Advocates, was struck off the list, and prohibited from ever pleading again in any of the courts of law. Poor *Linguet*, with real forensic eloquence, knowledge, wit, and sarcasm, was ever fishing in troubled waters, and had an end put to his own troubles, during the reign of terror, by the guillotine!

Letter II. contains an account of a new edition of the Abbé *Raynal's* Philosophical and Political History of the Commerce of the Europeans in the East Indies. It is well known that this lively and inaccurate writer abetted and abandoned Revolution, with equal impetuosity.

The succeeding epistle will be very entertaining to those who were acquainted with France nearly 30 years ago, and with the

the state of its theatres. *Azolan*, a new opera, not very successful, came out immediately after the *Orphée* of *Gluck*, with which *Rousseau* had been extremely pleased; and the latter being asked how he liked *Azolan*, he answered by a question in the favourite air of *Orfeo*: *che farò senza Euridice?* According to M. LA HARPE, *Gluck* had not a more passionate admirer than *Rousseau*, who never missed a single representation of his work; and indeed his music had reconciled this irritable Being to life. "While a man (said he) can enjoy so great a pleasure "during two hours, I think life is good for something." The letter-writer observes that 'music has great power over gloomy minds. It does not enliven, but it occupies them; it shakes the relaxed nerves, and awakens sentiment in a broken heart. I believe that no art operates with more promptitude, more powerfully, or more generally. Poetry produces greater effects; it speaks at once to the heart, the ear, and the understanding: but music addresses itself to the senses, and through that medium to the soul. Every man does not make use of his reason, but all have senses and a heart.'

Rousseau had himself begun an opera: but, when he had heard *Gluck's* music, he abandoned the enterprize.

'This (says M. LA HARPE) will probably be no loss to the public. He is no longer at that age at which men write with (creative) genius; and there is a time when the most richly gifted have nothing left but the memory of what they have already done. The last ten pieces of *Voltaire*, written subsequently to *Tancrède*, are striking examples of this truth. He moves around the exhausted ideas of his first productions.—He has now been silent a whole month, which alarms me. Inaction is unnatural to him; and when he ceases to write, he must be near ceasing to live. His greatest pleasure, during the last twenty years, has been to write to-day something that he shall print to-morrow. "My dear friend, (said he to me one day) it is now 20 years since I have been at Paris: but during full 20 years, I have kept four presses at work night and day."—I should be sorry, however, (continues M. LA H.) if he ended his days like the learned *Jn^o Le Clerc* in the last century; who, in extreme old age, had no other pleasure than that of sending copy to the printer, and receiving proofs from him, which were burnt in the back room, instead of going to press.'

We are next presented with biographical anecdotes of *Marmontel*, *Mercier*, and *Diderot*. Of the last, the author says;

'I have met *Diderot* since his return from Russia. He is never silent concerning the wonders which he has seen in that country, and at the court of Petersburg. He begins to talk of them to every one whom he meets, before he has said good morrow; and he declares that a longer residence at Petersburg would have turned his head. "I believe that I acted rightly (says he) in leaving the space of 600 leagues

between that sublime magician and myself." Making use of his own well-known expression, however, I remarked to him that, if he were far from the conjuring wand, he was still within its influence.'

In Letter iv. the writer speaks of *Grétry*, the favourite composer of French operas, as a musician full of grace and good taste in his compositions, and agreeable and well-bred in society. All this, we believe, was true 20 or 30 years ago: but, though he was generally successful in the theatre, and highly favoured by the court and men of letters, yet, tired of the monotony of prosperity, and of the easy means by which it was obtained, this M. *Grétry* now thinks himself able to form new combinations, to resolve the discords which philosophism has been so long preparing, and without temperament to arrive at perfectibility in social harmony, and to new organize mankind.

When speaking of *Philidor* the famous chess-player, who was a musician by profession, and who had composed several successful French comic operas, M. LA HARPE says: 'I never knew a good musician with so little wit as *Philidor* possessed. *Laborde*, himself a composer, and partial to *Philidor*, hearing him one day at a great dinner talking nonsense, to the astonishment of the whole company, called out, "Why now, there's an extraordinary man!—he has not a grain of sense—he's all genius!"

Letter v. is full of dramatic criticism. The *comédies larmoyantes* of *Lachaussée*, with the new kind of domestic and sentimental dramas of *Diderot*, *Sedaine*, and *Dorat*, are all well discussed.

The viith epistle is rendered interesting by a character and some anecdotes of the worthy M. de *Malesherbes*, with the return of the Duke de *Choiseul* from banishment, &c.

Letter vii. 'Madame de *Baratinski*, sister-in-law to the Russian ambassador, playing in an evening party at questions and commands, and being asked, why was a woman like a Capuchin Friar?—answered—"because both make rash vows." At the same play, another lady being asked what was the tomb of love? replied, *his field of battle*.—The Grand Duke is informed, in this letter, that a new work from the patriarch of Ferney (*Voltaire*) is expected; and that he promises to come to Paris in the Spring.

In Letter xiii. the Abbé *Delille*'s celebrity for versification begins to be proclaimed; and in the next, his poem intitled *Les Jardins* is discussed, and much praised for its beautiful verses, though little for its invention.

Letter xxiv. contains the best critique on the writings and character of *Rousseau* that we recollect to have seen. *Le Tour-*
neur's

neur's translation of *Shakspeare*, however, and *Shakspeare* himself, are depreciated in a contracted and prejudiced manner; the writer calling the divine poet of our hearts and feelings, 'a barbarous author of a barbarous age.' Was not France, and all Europe, equally barbarous? and had France any dramatic writer, contemporary with *Shakspeare*, less barbarous? M. LA H. does, indeed, condescend to allow that some sparks of genius may here and there be found in *Shakspeare's monstrous* plays, though they are void of all good sense, probability, style, unity, and propriety. *Voltaire* is more outrageous, and writes to LA HARPE on the subject with the true eloquence of a *Pois-sarde*:—

"I must tell you how angry I am with one *le Tourneur*, whom they call a secretary to some library: but he is not the secretary of common sense. Have you read the two volumes which this wretch has published, in which he would make us regard *Shakspeare* as the only model of true tragedy? He calls him *the god of theatres*; and he sacrifices all the French without distinction, to his idol, as they formerly sacrificed swine to *Ceres*. He never deigns to mention *Cornelle* and *Racine*! These two great men are only included in the general proscription, without being named. Two volumes of this *Shakspeare* are already printed, which you would take to be plays written for a booth at a fair 200 years ago;—and this rascal has found means to engage the King, the Queen, and all the royal family to subscribe to this work!

"Have you read his abominable jargon, of which there will be five volumes more? Will you suffer such an affront to be put on France? Do you hate this impudent fool as you ought? There are not stocks, pillories, fools-caps, nor horse-whips sufficient in France for such a scoundrel. The blood boils in my old veins when speaking of him. If he has not put you in a passion, I shall consider you as totally impenetrable. To complete the mortification, I find that the monster has a party in France; and still to aggravate the horror, I was the first who formerly spoke of this *Shakspeare* in France; it was I who first pointed out to the French, some pearls which I had found in his enormous dunghill: but I little expected that I should thus contribute, at a distant time, to deprive *Racine* and *Cornelle* of their laurels, in order to ornament with them the forehead of this strolling barbarian.—Try, I intreat you, to be in choler as much as I am, or I shall do you a mischief."

The author of these letters often repeats to M. *le Comte de Schowaloff*, that which he had before related to the Grand Duke.—In the account of what passed at the French Academy, on the reception of M. *de Chatellux*, he spares none of his friends. He mentions *Buffon's* decay, *D'Alembert's* defects in style and taste, &c. &c. We know not whether he has been equally communicative in the display of their merits.

We

We have now given sufficient specimens of this first volume, to inform our readers what kind of entertainment this correspondence is likely to afford its purchasers. Repetitions and redundances occur on some subjects: but the letters are written with such spirit, that they cannot fail to amuse all except those authors who are still living, and who are treated with little ceremony.

The first letter in Vol. II. has no date, but it must have been written about 1777; and it is as hostile to equality, as equality would be to nobility, if it were nominally established. The author certainly speaks as much too contemptuously of *Dante* as of *Shakspeare*. Are the Italians, and many others who admire this bold and original writer, all fools? It is great arrogance in an individual to attack an author whose reputation has been long established, and to insinuate that he himself alone is wise. In M. LA HARPE's judgment of other authors in this letter, we observe great severity, and little wit. He has praised nothing throughout 20 pages, except *Tom Jones*; which, he allows, is the best novel that ever was written in any language.—The only good thing which the writer has said, as far as p. 24, occurs in speaking of M. *la Place*, an unfortunate scribe, who procured it to be inserted in the Abbé *Desfontaine's* journal that he was dead; supposing that he should be lamented, and that his works would have more justice done to them: 'but the poor man was mistaken. The best thing that bad authors can do is to live; it is only great men who gain any thing by dying.'

A second *bon mot* (p. 42.). A bishop having published a pastoral letter, which was supposed to have been written by his chaplain, asked the Abbé *de Boileau*, the great poet's brother, whether he had read his last pastoral letter? "No, my lord, (said the abbé) have you?"

M. LA HARPE seems to have an unconquerable aversion to the poet *Dorat*, to whom he allows no kind of merit. There was a time, however, when he had his admirers: but not for his sprightliness, if there be a word of truth in the following epigram:

"How sad is this author in each merry flight!
How heavy he seems when he thinks to be light!
To each work that is short, how long the *préface*,
His flow'rs are all poppies, his smiles all grimace.
How insipid his praises! How sick'ning to hear;—
Yet a true happy coxcomb he tries to appear.
But if he has nought but his rhymes for his pleaders,
How wretched his mistress! how drowsy his readers!"

The prodigious success of the *Devin du Village* on its revival, after a new act of *Orphée* had failed, is curious; and M. LA

HARPE'S

HARPE's eulogé of that little musical drama is well expressed. He says that we must ascribe the greatest part of this success to the intrinsic merit of the work itself, which may be regarded as a model of pastoral simplicity; and it has an additional charm in the perfect agreement of the music with the words, which is so entire that the ideas and modulations (melody) seem to have been conceived at the same instant.

At p. 63, we have another severe epigram, on a fraudulent author:

"*Ragotte* in pulpit has been thought
With others' homilies to have shone;
But I who know they're fairly bought,
Can safely swear that they're his own."

The quarrel between the Abbé *Arnaud* and *Marmontel*, the first a Gluckist, the second a Piccinist, is well described. Both were men of singular merit, but jealous of each other, and each determined to bring the whole world over to his own opinion. Epigrams on this *tweedle-dum* and *tweedle-dee* quarrel are here buzzing and flying about like cock-chaffers on a summer's evening.

The death of the younger *Crébillon*, (1777) at the age of 70, is next recorded. This writer is always unjustly treated by M. LA HARPE, not for his licentious novels, but for his enmity to *Voltaire* and the *Philosophes*.—The Abbé *Maury's* history is not highly favoured in these letters, though he is allowed to be a man of wit who had learned to write. He afterward proved that he could *speak* as well as *write*, in the conventional debates.—We are next introduced to the Abbé de l'Épée, and *Sicard*; then again to *Grétry*, *Gluck*, and *Piccini*;—and to *Marmontel's* pamphlet on the *Revolutions in the French Music*.—Alas! more serious revolutions were hovering over the country! M. LA H. thinks with *Marmontel* on the subject of Italian melody. *Suard* and the Abbé *Arnaud* are violent Gluckists.

A good letter is given on the merit of *Sacchini's* *Olimpiade*. It had great success at the Italian theatre, where the dialogue was declaimed without recitative; and it was so much approved that, after four nights, it was prohibited as an encroachment on the *Académie Royale de la Musique*.—We are then informed of the arrival of *Voltaire* at Paris, and of the death of *Lekain* the great tragic actor*. *Voltaire's* reception, the honours paid to him by the literati at his apartments, and by the public at the theatre, his last sickness, death, and the impediments to his being buried in any church at Paris, are all minutely described.—*Rousseau* died in 1778, a few days after *Voltaire*, at the age of 70.

* See *Memoirs of Lekain*, Art. x. of this Appendix.

Atp. 358. we have an account of Madame *de Genlis*, and the rise and progress of her celebrity. Her *Moral Comedies* were first played in 1779, by her own children in her own house: these M. LA HARPE praises very much, and justly: declaring, contrary to the general opinion, that they were written before he had the honour of that lady's acquaintance, and that he had no share in them. Having been present, however, at these juvenile exhibitions, with all the flower of Paris, he inserts in this letter a copy of some verses which he wrote on the occasion, full of rapture and enthusiasm. At p. 375, also, we have some more complimentary verses, addressed to this lady.

Vol. III *Beaumarchais' Manifesto to the King of England*.—More verses to Madame *de Genlis* on the last three volumes of her *Théâtre de l'Education*.—Anecdotes concerning the life, writings and death, of the Abbé *de la Porte*.—Inedited verses, by *Voltaire*, to Frederick II. King of Prussia, when both were in peace and good humour with each other.—Epigrams on the Gluckists and Piccinists. The chiefs of the *Gluck* faction, *Suard* and the Abbé *Arnaud*, are not highly flattered in the first.—*Laborde's Essai sur la Musique* seems to be much too favourably characterized. If M. LA HARPE had possessed patience enough to read it, he would have found that the author's exclusive admiration of *Rameau*, and reliance on the Abbé *Roussier*, have rendered the critical part of his work extremely unpleasant to persons of taste, who are acquainted with other styles and other precepts. The historical part, however, as far as it concerns French musicians and lyric poets, is very amusing, and well written.

Our *Universal History* translated into French by M. *le Tourneur*, the translator of Shakspeare and others, is censured as dull and dry. Indeed, the style of Robertson and Hume has rendered most of our old historians illegible, and fit to be consulted only for facts.—Of *Voltaire's* funeral, celebrated at Berlin, the King of Prussia here gives an account; in which it is asserted that the philosopher had made his peace with the church, confessed himself, given alms, and performed several acts of piety, according to the rites of the catholic communion! The world, we believe, knows the reverse of all this.

At p. 144. we have a history of Madame *Du Deffant*, the blind lady, at whose house all wits and blue-stockings were wont to assemble, as at Mrs. Vesey's and the late Mrs. Montague's in England.—P. 191. An account of the favourable reception of *Piccini's* opera of *Iphigénie en Tauride*.—Eloge on the Abbé *Delille's* verses, which he read at the French academy, and with which M. LA HARPE says the assembly was enchanted.

• He

* He has certainly a peculiar talent for the mechanism of verse: a rare merit, after all that has been already done.'

P. 195. Anno 1781. Now the first seeds of revolution begin to spring up. 'Nothing (says the writer) has agitated the minds of men more than M. Necker's *Compte Rendu*; (State of the Finances in France;) 4000 copies have been sold every day, and now the whole sale amounts to 40,000.' Here the author is very fair and candid. He allows merit in the writing, mixed with a little too much self-importance;—but afterward, other faults are laid to Necker's charge;—'and the least that he can say (remarks M. LA H.) is, that, in the most terrible experiment that ever was made, on which there was a cry from the four corners of the earth, *Tu t'es trompé*, "you are deceived," he ought to think himself too happy in confessing his fault, and in exclaiming—*Yes; I am deceived.*'

The death of *Turgot*, at the age of 49, is next recorded, and his character is given. He is said to have been inflexible; never giving way to circumstances: so that, with the purest intentions, he offended the people whom he meant to serve; when by a little management, and yielding to small obstacles, he might have succeeded.

P. 217. Female education more extended in France than usual. Talents in music, drawing, painting, and all pleasing accomplishments, are cultivated with enthusiasm.

P. 235. Necker dismissed—Raynal banished—Shakspeare's Richard III^d hissed outrageously—but it was suffered to be played four or five times, *to the great scandal of honest people*. So early as this year, 1781, the plan was formed of a new edition of the *Encyclopédie*, *par ordre des matieres*, not alphabetically incorporated, but each art and science printed separately. This work has been proceeding during the whole revolution, and has been lately finished in 200 vols. 4to.—the beaux Arts by Messrs. *Suard* and *Arnaud*; 'who are both possessed (says M. LA H.) of taste and knowledge, but so wholly warped by the spirit of party, that they will plant their prejudices in a book which should be consecrated solely to truth.'

After having highly extolled and berhymed *Madame de Genlis*, the author now seems to be falling off from his allegiance to that lady. Her being appointed governess to the sons of the D. de Chartres, in 1782, gave offence to all Paris; and M. LA HARPE discovers much conceit and vanity in the perpetual praises of the young people in their dialogues with *Madame D'Almancin* Adèle and Théodore, which lady is supposed to be *Madame de Genlis* herself. The author seems to have been very partial to her, till she attacked the *philosophism* of the French academicians.

Vol. iv. p. 36. *Tom Jones*, a successful comedy, from Fielding's Novel.—56. The Duchess du Maine's character admirably drawn, by Madame de Staël.—Berquin's *Ami des Enfants* approved.

Two admirable pages (64 & 65) occur on the easy criticism of a good poem or piece of music, by saying that *it is too long*.—On joys in the power of good-natured old age.—A false analysis and exposition of the plot of the tragedy of *King Lear*, from Shakspeare, in run at Paris: 19 successive representations were wormwood to M. LA HARPE and the French Dramatists.—P. 77. The Revolution (ann. 1783) advancing by great strides. Young *Mirabeau*, on *Lettres de Cachet and State Prisons*, gives the first broad symptoms: the present writer on his side.—Factionous plays prohibited.—Licence increasing.—Mr. Thomas Paine's writings much admired at Paris.

We next meet with more abuse of *King Lear*.—*Voltaire's* Memoirs of his own Life, and abuse of the King of Prussia—when the latter was safely entombed.—French Architecture censured.—*Linguet* and the Bastille.

Beaumarchais' Marriage de Figaro, we are told, is allowed, after two years' refusal by the King and government, to be publicly acted; 300 of the first people dined in the boxes belonging to the actors, in order to be sure of places on the first night; and three persons were suffocated in trying to get in at the first rush. M. LA H. says that the work is an *imbroglio*, in which there is a scrap of every thing, except probability, reason, and decency. One of its principal charms consisted in an open abuse of government, and of persons in office and authority of every kind; a gratification which the French public had never been permitted to enjoy before. *Figaro* was performed more than 100 times, and had been privately represented at the hotels of the nobility, previously to the King being teased into granting a permission for its exhibition in the public theatre.

The author of the letters before us is certainly a rigid critic, who does not spare writers in prose or verse, either in their characters or works,—as they die off. To *Voltaire's* productions late in life, and his posthumous works, he gives no quarter: on *Marmontel's* poetry, particularly for the theatre, even while that writer was living, he is very severe: *Du Clos's* eloquence is censured: *D'Alembert's* spirit of cabal and depreciation of rival merit are not concealed; and no one work is mentioned as perfect:—yet, with all this severity to contemporary authors, M. LA HARPE is an agreeable and judicious commentator on the Greek and Roman classics, as well as on the productions of the middle ages, when neither envy nor prejudice warps his judgment.

A fifth Vol. of letters is promised, which is to be the last.

ART. IV. *Tableau de l'Agriculture Toscane*; i. e. A View of the Agriculture of Tuscany. By J. C. L. SIMONDE, of Geneva. 8vo. pp. 328. Geneva. 1801. Imported by De Boffe, London. Price 6s. sewed.

TUSCANY has been esteemed the Garden of Italy, and even of Europe; and it must be amusing to the sensible part of the British community to survey the habits, manners, and usages of its cultivators, (who have a distinct character from the corrupt inhabitants of its towns and cities,) and to contrast its climate, soil, and productions with those of other regions. M. SIMONDE informs us that he was advised by a friend not to compose a book in the French language on Tuscan agriculture, but to content himself with drawing up a memoir on this subject, to be read at the meeting of some agricultural society; because the information, which he would convey, could be of use only to two or three of the Southern Departments. We highly applaud him, however, for rejecting such counsel; since, notwithstanding that the practices of the Etrurian farmer cannot be advantageously transferred to many other parts of Europe, a species of pleasing instruction may be derived from comparative agriculture. Each country, province, and district, may have a system of culture peculiar to itself; by comparing which together, we perceive their respective advantages and disadvantages; we see how Providence, by varying the gifts of nature, diversifies our care and labour; and we discern that, if the husbandmen of the north cannot advantageously copy the cultivators of the south, they may mutually, by the intervention of knowledge and commerce, be led to respect and benefit each other.

M. SIMONDE presents himself to us not as a speculative, but as a practical farmer; and he undertakes merely to describe things as they actually exist. Having been employed as an agriculturist in Tuscany, as well as in the territory of Geneva, he deems himself qualified for the subject which he proposes to discuss; and he flatters himself that the picture must be interesting which shews the characteristic differences of countries favoured by nature, and embellished by human ingenuity. Desirous of giving an exact as well as a faithful account, he confines his observations to that part of Tuscany which is called *Val de Nievole*, in which the most industry and the best cultivation prevail. The land of this district is divided into three classes—*Plain—Hill—and Mountain*.

The first part, which treats of *the Plains*, is divided into twenty-three sections. It appears that the surface-soil of these plains consists of depositions of mud, six or seven feet thick, of inexpressible fertility, being the sediment of waters which once

covered them. This soil rests either on gravel or quick-sands, which is so full of springs that it is impossible to dig deep into it, or, without much trouble and expence, to lay a good foundation for houses. In consequence of its greasy nature and great fertility, it is called by the Italians *terra grassa*. All these fat and clayey soils, however, are not equally favourable to vegetation. In the plains of Italy, large tracks of land lie below the bed of the rivers which water them; and, from this circumstance, they are often inundated, or injured by excessive humidity. Through the dikes, raised along the banks of the rivers, water impregnated with saline particles often soaks or percolates in great quantities, and not only destroys the hope of the husbandman, but makes the cattle loathe the herbage.

To prevent so great an evil, the Tuscans have recourse to a process which they term *Colmats* or *Comblées*; of which, this author says, Mr. Arthur Young gives an erroneous account, and of which practice no use can be made in England. The intelligent reader, however, will perceive that this operation, so far from being inapplicable to England, has in fact been long practised by us. It is nothing more than what in Lincolnshire and some other places is called *warping*, or a process for raising the surface of low and marshy lands, by repeatedly flooding them, and allowing a succession of sediment to be deposited. In Italy, where the rains are so violent that they wash down the earth which covers the mountains, and render the rivers extremely muddy, this operation, under favourable circumstances, is sure of being attended with considerable effect.—If it be true, as M. SIMONDE states, that the water of the Mediterranean is continually rising, and threatens sooner or later to inundate all the plains of Italy, it is prudent in the inhabitants to avail themselves of every opportunity of elevating their surface, by means of the mud so abundantly brought down by their rivers.

To the account of their *Comblées*, is added that of their *arrosements*, or irrigation, which appears to be conducted with much skill by the modern Etrurians. The water, however, is not collected and dispensed (as with us) in the irrigation of meadows, but in fertilizing their gardens; among the beds and borders of which, this element is carefully and economically conducted. Experiencing the effects of stagnant water in decaying the roots of plants, they are solicitous not only of bringing it on, but of carrying it off; being always attentive to give a sufficient fall to the canal in which it flows. They conduct it from the higher grounds to the lower in various ways; and in those places in which wells can be sunken, they elevate the

the fluid by means of machinery worked by a horse, for the purpose of irrigation.

As such pains are taken to promote vegetation in the kitchen-grounds, it might be reasonably supposed that the practice of gardening is carried to great perfection by the Tuscans: but the contrary, however, is the fact. The catalogue of their vegetables is small; and if they excel in the cultivation of the water-melon, and of a few other esculent plants, their mode of manuring is too disgusting to be described. The Tuscan garden will often offend the nose by its offensive odour, as highly as it delights the eye by its luxuriance. (See p. 15. and also p. 93. *Quant aux engrais, &c. to leurs terres.*)

From describing the garden culture of Tuscany, this intelligent author passes to that of the fields; which, though inferior in value to the irrigated *potageries*, exhibit a prospect of great abundance and variety. These fields being oblong parallelograms, generally about 100 feet wide, and 4 or 500 long, are separated by ditches, and planted round with Po or Lombardy poplars, employed as supports to the common vine of the plain; while two rows of mulberry trees extend lengthwise up the middle. Particular accounts are given of the management of this vine, which vegetates with great elegance and grace, but yields a most disagreeable beverage. The culture of the Mulberry tree is connected with the raising of the silkworm, and the production of silk; an article of great commercial importance to this part of Italy. In the *Val de Nievole* alone, these insects annually consume, taking one year with another, eight millions of pounds weight of mulberry leaves, and produce 400,000 lbs. of cocoas, or cods of silk. The capital employed in this manufacture is about £22,000 Florentine crowns: but it is added that this manufacture is on the decline.

Under the article *Tillage*, the Tuscan plough and other simple implements of husbandry are delineated; together with the mode of drawing the furrows and sowing the seed. M. SIMONDE remarks that more than a pair of oxen are never used to draw a plough; and often only a pair of cows, with one person conducting them.

The course of crops occupies in general three or four years. In the 1st year they sow wheat, and in autumn lupins, which are ploughed in as manure. 2d year, wheat, and in autumn radish-seed, trefoil, or other forage. 3d year, Turkey wheat, or millet, &c. When the course extends to four years, it is, 1st year wheat, and in the autumn French beans mixed with Turkey wheat. 2d, Wheat, and lupins in autumn. 3d, Wheat, and forage in autumn. 4th, Turkey wheat, millet, &c. In Tuscany, two crops are produced in a year.

Many varieties of wheat are said to grow in Tuscany, of which the author thinks it would be useless to attempt a particular description: he therefore only observes, in general, that this grain is larger, rounder, and more opaque than that of Geneva; and that the Tuscans are persuaded that the best of all wheat grows in their country. We know not how far this notion is justified: but it may be worth while, since we are apprized of the varieties which they possess, to procure parcels of them, in order to make experiments with them in our own country.

From a species of hard grain called *grano duro*, or *hard corn*, the paste which we call *Macarani* is made. The process is particularly detailed in the present volume; as is also the manner of harvesting and of threshing out the grain. The day in which the latter operation is performed (for by collecting the whole vicinage together, it is completed in a single day) is a great holiday in Tuscany; they work hard and live well all the day, and dance all the night. After the corn is separated from the straw and the chaff, it is preserved in subterraneous excavations; which are curiously constructed, and are found to defend the corn from mildew and from insects.

M. SIMONDE observes that, as the traveller over the plains of Tuscany scarcely sees any cattle, he must wonder how the farmers procure such quantities of dung as are continually spread on their land: but the wonder will cease when he is informed that they keep the cattle constantly in the stable, in order that none of the dung may be lost. They are economists in the article of manure; and as they have nothing but fodder which must be cut for these animals, we do not reprobate this practice: but we cannot account for a fact which is related in this section, viz. that there is only a single bull kept in the whole province of the *Val de Nievole*!

The hedges or hedge-rows of this district are represented as extremely delightful; being composed of the white and black thorn, the sweet briar, evergreen rose, ilex, service-tree, honey-suckle, pomegranate, broad leaved myrtle, arbutus, bay-tree, the wood thyme, laurel, powdered broom, and virgin's bower.

The condition of the peasantry, with an account of which this part of the work concludes, is represented as various. Those farmers who hold their land on leases are, as can easily be believed, more industrious and substantial than those who cultivate their farms on the terms of sharing the produce with their landlords. This latter must be a wretched mode of tenure.—The domestics of the farmers, and their hired servants, are fed with the strictest economy. They have no meat except on Sundays. On other days, their meals are composed of

of Turkey wheat boiled, sallad, bread, French beans, or some other boiled pulse, seasoned with oil, and soup. Our English husbandmen, if they have not so luxuriant and prolific a soil to cultivate as that of the *Val de Nievole*, will not be disposed to envy the life of a Tuscan ploughman or herdsman: while, such is the power of habit, the Tuscan might be equally reluctant to exchange his pulse and oil for our fat bacon. Be this as it may; it is time for us to quit the plain, and to proceed to the second part of the work, which treats of

The Hilly Region.—Here M. SIMONDE commences with a picture of the scenery of the Tuscan hills, which we must endeavour to copy for the amusement of our readers: (p. 102.)

‘The plains of all countries please the eye only by the richness and fertility which they display; and this kind of beauty belongs in an eminent degree to those of Tuscany. The hills, however, which elevate themselves around them, unite grace to richness, and display the treasures of the field only to heighten the charms of perspective. Plots of ground, raised on terraces one above another, appear as if they were inclosed in vine baskets. The grass every where assimilates itself with the wheat, and blends its soft verdure with the golden ears of corn. Olive trees shadow the banks, and vary the picture by their rounded shapes. If their sallow green be melancholy, yet variety renders it pleasing, and its pallid hue is compensated by their picturesque form and elegant lightness. The woods of chesnuts which crown the hills, and which sometimes cross them by following the course of the torrents, contrast agreeably with the olive by the brightness of their verdure, the extent of their branches, and the majesty of their form. In short, the numerous villages placed like eagles’ nests between the rocks, or on the declivities of the little hills, and the habitations so thickly strewed as almost to cover them, animate the perspective, and give to the whole a truly picturesque effect.

‘It is in an autumn evening, when lights glimmering from every part disclose the modest dwellings of the husband-men, concealed under trellises, or groupes of fruit-trees and olives; when flambeaux made of straw, gliding along the paths, mark the peasants gayly running to join their neighbours, and to spend their evenings together; when the round ridges of the mountains, tufted as it were with olive-trees, sketch their own out-line in a sky of the purest æther; that a view of these hills excites the most romantic ideas. A night in the month of June presents a very different prospect, more brilliant perhaps, though less animated. It is then that the *lucciole* or shining flies (*lampyris Italica*, Linn.) are most abundant, whose irregular flight, marked by streams of light at one time visible and at another time concealed, strikes and dazzles the eye. The mountains appear to be set with brilliant gems, the vallies to be lakes of light, and the whole country to be so electrified as to be giving out sparks at every point.

‘The winter season, in which snow is altogether unknown, has also its beauties. The turf not only preserves its verdure, but is even

enamelled with flowers, some of which would not disgrace the garden; such as varieties of anemones, every species of narcissus, hyacinths, hellebores, &c.; and the olive-trees do not appear to so much disadvantage as in the brilliant season of spring. The olive harvest also continues through the winter. This pleasing occupation contributes to render the peasantry during this season chearful and animated, and forms a scene very different from a wintry picture.'

The author subjoins to this landscape an avowal that its beauties are more particularly characteristic of the *Val de Nievole*, than of all parts of Tuscany in general. He then gives an account of the soil, culture, and productions, &c. of the Tuscan hills; which occupies, in the whole, twenty-nine sections of this part. He first discusses the nature of the olive-tree; and in speaking of the climate which suits it, he points out the essential differences between it and the vine. The manner of preserving the green olives, for the table, (which are gathered before the general crop is ripe) is particularly described, as well as the processes of gathering the olive crop and extracting the oil. They reckon, he tells us, in a good harvest, that a sack of olives will produce six flasks of oil, or 36 pounds of 12 ounces. It is objected to the cultivation of the olive-tree, however, that its produce is extremely uncertain; and M^r. SIMONDE discusses its operation on the wealth and population of the country. In years of abundance, the peasants have no economy, and in years of scarcity they have no resource; yet, he remarks, it must not be denied that the olive-tree is of some use to the country, because it makes the waste land productive, and covers some sterile regions with inhabitants which would be otherwise deserted. Advantages are commonly balanced by disadvantages; but here the defect seems to lie more in the government than in the uncertain produce of the olive plant. If the peasantry were encouraged to be provident, by a change in their miserable condition, regular habits would be formed, and years of abundance would compensate for those of scarcity.

Next follows the history of the Vine, in the propitious aspects of the Tuscan hills. The modes of planting, training, and pruning this valuable tree are fully described; and a catalogue is given of the several varieties of black and white grapes which this country produces. The great difference between the plains and the hills is that, while the best vines in the former yield only a miserable kind of grapes, the very worst in the latter, if cultivated in favourable exposures, will produce fruit which is delicious. The vintage, which commences at the end of September or the beginning of October, is conducted in Tuscany in the same manner as at Geneva. The Tuscans make very little white wine, but that

that little is from picked fruit, gathered before the general vintage *. All the remainder of the white grapes are mixed with the red.—In addition to the ordinary wines of this district, all the cultivators prepare a choice sort, which they term *vin de dessert*. Each family has a particular secret for making it; and into these mysteries the present author, though he lived some years in the country, was not initiated. After having stated the prices of different kinds of wines, he makes this general observation: ‘While the vines of the hills of Tuscany enjoy an immense superiority over all those of the northern parts of Italy, they are not surpassed by any of those of the South. Yet the *Lachryne Christi* of Naples, and even the wines of Champagne, Burgundy, and Bourdeaux, are imported at a great expence. into Florence: but it is owing to fashion, and to their scarcity, that they are so much in request.’

We must not only pass over the author's digression on the vineyards and wines of the Cisalpine, but must now dismiss, with more brevity than we could wish, the remaining topics which immediately relate to his proposed subject.

The fields on the Tuscan hills are cultivated with the spade: but the drought to which they are subject prevents the adoption of the same system of crops which prevails in the plains. ‘I had thoughts (says M. SIMONDE) of making a trial on the borders of the *Val de Nievole*, of some of the English crops, as the radish and the annual grasses, such as are to be seen in the artificial meadows in France: but the disasters of the war prevented my experiments. It was impossible to adopt the English practice of depasturing cattle, on account of the steepness of the hills, and of the vines and olives which are scattered over them.’

The English agriculturist will be surprized to find, in the section which treats of the size of farms, that in Tuscany farms are generally less than many of our fields. In the hills of the *Val de Nievole*, farms vary in size from four to six coltras †, but the most usual extent is that of five coltras, or 193,270 square feet. Placed in the middle of this scrap of land, is a house for the peasant and his family; who have only one half of the harvest for their subsistence, as the other moiety is the property of the landlord. For a calculation of the produce of a farm of 5½ coltras, or of 202,935 feet square, on the half of which a

* To the juice of the white grape, the Italians do not give the name of *wine*; they call it *Trebbiano*, from the plant yielding the particular grape from which it is made.

† A *Coltra* is considerably less than an English statute acre, being only 38,654 square feet.

peasant with his family lived for thirty years, and brought up five sons and two daughters, we must refer to the work itself. However this account may stand, it will afford us no very favourable idea of the condition of the peasantry, who appear to be in a deplorable state; and the author may justly comment on the disadvantages of that mode of occupancy, by which the tenant covenants to share the harvest with his landlord.

This part of the work concludes with an enchanting delineation of one of these small farms, which the narrowness of our limits alone restrains us from extracting. It must be a little paradise!

An account of the *Mountains* constitutes the last division of this volume; and it is subdivided into seventeen sections. Here the author describes the culture of these regions, and the state of society among the mountaineers. It appears that the chesnut trees, which cover these elevated spots, form the chief riches of the inhabitants; the fruit, after having been dried on kilns or stoves, is ground into a kind of meal, of which sweet cakes are made; and these not only serve as food for themselves, but are sold as a luxury to the people of the plains.—The condition of these mountaineers is preferable to that of the other peasants, and their figure is strikingly beautiful.—To the sheep, the forests, and the fruits of the mountains, distinct sections are assigned by M. SIMONDE: but objects of more importance are the Manufactories, which are situated in their gorges: viz. those of paper, of silk, and of glass. Of the former it is observed; ‘few manufactures contribute less to the prosperity of a nation than that of paper, because it does not encourage the production of any primary article, and does not lend its aid either to the arts or to agriculture, in replacing their capitals.’ (p. 263.) The silk manufacture, however, is stated to be of importance to the country; and the author laments that the use of cotton should have so generally superseded it.

M. SIMONDE remarks with concern that the gentry abandon the country, and live wholly in the towns and cities; because their residence on their estates is necessary to the prosecution of agriculture with taste and with science, and to the removal of those evils under which it labours. As the country is thus deserted by the rich, it is scarcely necessary to repeat the former observation, that the art of gardening is scarcely known in Tuscany; though its climate, of all others, invites to the enjoyments of rural life. Even in the depth of winter, myrtles and pomegranates flourish; and in the middle of January the earth smiles, the fields look green, flowers blow, the birds are in full choir, and perfumes embalm the air. How much it is to be lamented that a country possessing such abundant charms,
and

and capable of such infinite improvement, should be possessed by a people so insensible of its value!

Mr. Arthur Young having fallen into an error respecting the origin of the opulence of Italy, the present writer takes a view of its antient commerce; and while he wishes to promote agricultural improvements, he renders ample justice to trade, by evincing its importance to national energy and prosperity.

The Volume is concluded by an useful comparative table of monies, weights, and measures.

We cannot lay aside this work without thanking its ingenious author for the entertainment which he has afforded us. The people of Italy, and of the southern parts of France, may reap much profit from the numerous hints and observations which are here communicated; and though the hills of Britain are not clad either with vines or with olives, her sons partake of their produce by means of her extensive commerce, and will gladly receive the knowledge here conveyed respecting their cultivation. Let them benevolently wish in return, that this view of Tuscan agriculture may tend to produce some good effects on the people of that delightful country.

ART. V. *Annales de Chimie*; i. e. Chemical Annals, Nos. 112—117. 8vo. Paris. 1801. Imported by De Boffe, London.

ACCIDENT prevented us from paying our usual attention to this work in our last Appendix: but we now resume our analysis at the point at which we broke off in the Appendix to our 34th Volume.

Report of M. M. Guyton and Vauquelin, concerning a Memoir of M. THENARD, intitled, Observations on the Combination of the Tartareous Acid with the Salifiable Bases, and the Properties of the Salts which are thus formed.—It has been long known that the Tartareous Acid has a great tendency to form triple combinations, of which we have examples in the Emetic Tartar and others. M. THENARD has considerably augmented the number of these combinations; and he has proved, by the experiments here reported, that the greater part of the Tartrites may be combined together, so as to produce simple salts which have peculiar properties. Some of these salts have two alkalies for a base, and others have an alkali and an earth, or an alkali and a metal, or an earth and a metal. It is also remarkable that, although the greater part of these bases can be separated by the alkalies from their simple combinations with the Tartareous Acid, yet they cannot thus be separated when they constitute triple salts.

Some

Some Reflections on the Difference of the Acetous and the Acetic Acids. By M. DABIT of Nantes. — In opposition to the opinion of M. Adet, this author concludes from his experiments, 1. That there is a difference between the acetous and acetic acids. 2dly, That this difference is owing to a larger proportion of oxygen in acetic acid than in acetous acid. 3dly, That the acetous acid may be converted into the acetic acid by an additional quantity of oxygen. 4th, That the acid is in the state of acetous acid in acetate of potash. 5th, That the acetic acid, obtained when this salt is decomposed by sulphuric acid, is owing to a portion of oxygen which the acetous acid takes from the latter.

Experiments on the Ashes of some Kinds of Wood. By M. PISSIS. — These experiments are intended chiefly to shew that, contrary to general opinion, a considerable quantity of potash may be obtained from the ashes of the white poplar.

Experiments on Platina. By M. PROUST. — In the first chapter of this memoir, the author enumerates the extraneous substances which are found mixed with Platina; these are quartzose and ferruginous sand, pyrites, gold, and quicksilver. Chap. 2. The sands may be separated mechanically (when spread abroad) by the blast of hand-bellows. Chap. 3. Gold, being frequently whitened by the quicksilver which is present, may be discovered by heating the Platina in a proper vessel. In chap. 4. the writer observes that Platina, in its natural or crude state, is in reality a sulphuret of the metal. In chap. 5. some experiments relative to the oxidation of the mineralized Platina are related. Chap. 6. contains an examination of the mineralized Platina by pure nitric acid:—which had no effect upon the Platina, and only separated the quicksilver from the gold that was present. Chap. 7. informs us that 400 grains of three different samples of the ore, or mineralized Platina, being separately treated with nitro-muriatic acid, left a residuum of a black substance in the following proportions:

	Nos.	Grs.
{	1.	10 $\frac{1}{2}$
	2.	6
	3.	14

400 grains of what M. PROUST calls black ore of Platina left a residuum amounting to 7 grains: another sample left 9 grains: and a third left 3 grains. In chapter 8. these residua are proved to be graphite, or plumbago. The 9th and 10th chapters contain observations on the solutions of Platina. In the 11th are reported some experiments on what the author calls the black powder of Platina: from which he infers that a part

of the mineralized Platina is in the state of a phosphuret. Chap. 12. treats of the crystallization of the solutions of Platina. The 13th states that nitro-muriatic acid, composed of three parts of muriatic with one of nitric acid, is the best menstruum for dissolving Platina. The 14th treats of the utility which may be deriv'd from the products obtained by distilling the solutions of Platina; and the 15th and last chapter relates some observations on the solutions of Platina made by nitro-muriatic acid, composed of nitric acid and common salt; the specific gravity of the nitric acid being 1,279.

In this Memoir, several remarkable facts are related, and we have only to regret the want of perspicuity in some parts of it. M. PROUST promises a continuation of these experiments.

Account of the Oil extracted from the Cornus Sanguinea of Linnaeus. By M. MARGUERON. — From the experiments here related, it appears that this oil may be of use to the arts, and perhaps to medicine.

Memoir on the Acid Water of the Starch Makers. By M. VAUQUELIN. — It has long been known that the water, in which the starch makers macerate their flour, passes gradually into an acid state: but hitherto no attempt had been made to ascertain the nature of the acid. M. VAUQUELIN was therefore induced to perform various experiments on this liquor; and he states the composition of it to be as follows; 1. Acetous Acid. 2. Ammoniac. 3. Phosphate of Lime. 4. Animal Matter. 5. Alcohol. He observes that only one of these substances (namely phosphate of lime) was contained in the flour previously to fermentation, and that all the others are results of this natural process. He proposes it as a question, whether the acetous acid might not be separated with advantage to the manufacturers, since it certainly might be employed in white lead and similar preparations.

Experiments on the Reduction of Metals by Charcoal, on the Anomaly which this Process creates, and on the Discovery of a New Gas. — These experiments were made under the direction of M. Guyton, in consequence of a paper written by Mr. Woodhouse of Pennsylvania, and published in the Medical Repository, under the title of "Observations on certain Objections of Dr. Joseph Priestley to the Antiphlogistic System of Chemistry." We do not deem it necessary to enter into an account of the experiments of the French chemists, because they have been anticipated by those of our ingenious countryman Mr. Cruickshank of Woolwich, which have been published in

No. 59. of Mr. Nicholson's Journal, April 1, 1801. The experiments performed under the direction of M. Guyton were published in the 114th number of the *Annales de Chimie*, 30 Prairial; and consequently they did not appear in print until more than a month after those of Mr. Cruickshank.

Letter from M. DEYEUX, to the Authors of the Annales de Chimie, giving an Account of a Gummy Substance contained in the Bulb of the Plant called Hyacinthus non Scriptus, discovered by M. LEROUX.—This article does not at present require any farther notice than annunciation.

A Method by which Sugar may be separated from Honey. By M. CAVEZZALI.—Having clarified the honey, the author exposed it to a gentle heat in an earthen vessel, and added a quantity of pulverized egg-shells until all effervescence had ceased. Some time afterward, when the whole had remained undisturbed, a thick froth was formed, and was removed. The syrup being then put into a bottle, at the expiration of four months it afforded crystals of sugar; they were reddish, but this colour was removed by alcohol.

Remarks on Clarification. By M. PARMENTIER.—This paper contains some useful observations on the different modes and effects of filtration, &c.

Memoir on Bleaching the Paste of Paper. By M. LOYSEL.—According to this account, it appears better to bleach the paste than the rags or cuttings: but, for the mode and apparatus, we must refer our readers to the plates of the work.

Analysis of the Waters of Plombières. By M. VAUQUELIN.—From this Analysis, we find that one pound of the water contains the following proportions of matter:

	Grain.	
Carbonate of Soda	1	$\frac{1}{2}$
Sulphate of Soda	1	$\frac{1}{4}$
Muriate of Soda		$\frac{1}{4}$
Siliceous Earth		$\frac{1}{4}$
Carbonate of Lime		$\frac{1}{4}$
Animal Matter		$\frac{1}{4}$

Observations concerning the Action of Sulphate of Iron on Nitrous Gas. By M. BERTHOLLET.—M. Humboldt has asserted that Sulphate of Iron completely absorbs nitrous gas, and only separates the azotic gas which was simply mixed with it; and on this assumption he founded the whole of his eudiometrical system. In the present memoir, however, M. BERTHOLLET proves that this idea is erroneous, since nitrous gas is in fact decomposed

decomposed by water, by potash, by mercury with the assistance of the electrical spark, and by sulphate of iron; and that the azote, obtained when the latter is employed, did not exist in an uncombined state, but is a product resulting from the action of the sulphate of iron, which, to a certain degree, decomposes nitrous gas.

Experiments on the cold Combustion of the Gaseous Oxide of Carbon. By M. GUYTON.

Memoir on the Reduction of the white Oxide of Zinc by Charcoal, and on the Gaseous Oxide of Carbon which is thus produced. By M. M. DESORMES and CLEMENT.—The facts contained in these two memoirs, with some others in addition, having been discovered and made known in this country by Mr. Cruickshank of Woolwich, in a second paper published in Mr. Nicholson's Journal, (No. 55, September 1, 1801,) previously to the arrival of this number of the *Annales de Chimie* (115) in England, we think that it would be useless for us now to state the particulars.

New Galvanic Experiments. By M. M. FOURGROY, VAUQUELIN, and THENARD.—A pile was formed with plates, each of which was one square foot. The commotions and decomposition produced by this pile did not differ from one which was composed of small plates; excepting that the combustion of wires immediately took place with great violence; and when these were immersed in oxygen gas, they were burnt with a vivid light. The small plates, however numerous, did not produce this effect; and it seems, therefore, that combustion takes place according to a law relative to the surface of the plates, while the other phenomena are influenced by the number.

Notice of a new Method of whitening Linen for domestic Purposes. By M. CHAPTAL.—The detail of this method has been made known in a work intitled "*Essai sur le Blanchiment, par R. O'Reilly*;" and M. CHAPTAL, in this notice, states that M. BAWENS has fully proved the utility of it with respect to sheets and linen in general.

On the distilled Water of certain Plants said to be inodorous. By M. DELUNEL.—This author is of opinion, first, That it is erroneous to believe that the distilled waters of inodorous plants are not more efficacious than simple distilled water; and that their use in medicine will become more general and more valuable, by a comparison of the waters of the Vegetable Kingdom with those which are called Mineral. Secondly, That, by
a pro-

a proper method of distilling the inodorous plants, we shall probably acquire many new and useful remedies.

Observations on the Means of ascertaining the Presence of Lead in Wine. By M. REINECKE.—This paper does not require to be particularly noticed, because the well known test of hydrogenated sulphuret of potash is employed; and the whole appears to be a matter of private concern between the author and some wine merchants.

On the Culture of the Sacchariferous Beet (Beta Vulgaris, Linn.) in France. By M. DE CASTILLON, of Berlin.—It is the object of the author of this paper, to shew that the Beet may be cultivated in soils which in other respects are of little use.

Notice concerning the Sebacic Acid. By M. THENARD.—From the experiments here related, this author is of opinion that there exists in distilled fat, or lard, a peculiar acid; which, instead of being volatile, odorate, and pungent, is solid, devoid of smell, and fixed to a certain degree; that, besides this substance, acetic acid is produced; that the peculiar odour of distilled fat does not originate from the Sebacic acid, but probably from some parts of the fat converted into gas; that, by the processes described by *Crell* and others, only Muriatic and Acetic Acids can be obtained; and, consequently, that the real Sebacic Acid has hitherto been unknown, and, according to the present state of chemical science, must be regarded as a new Acid.

New Reflections on the Medicinal Wines. By M. PARMETIER.—This paper may be consulted with some advantage by pharmaceutical chemists.

On some Properties of the Galvanic Apparatus. By M. M. BIOT and F. CUVIER.—From the experiments made by these gentlemen, they conclude, 1st, that the Galvanic apparatus, when in action, decomposes the atmospheric air, and absorbs part of its Oxygen. 2dly, That the Oxygen afforded by atmospheric air contributes to the action of the pile, but is not absolutely necessary to produce this action, since it also takes place *in vacuo*.

Observations on the Preparation of the Phosphates of Soda and Ammoniac. By M. THENARD.—After some preliminary experiments and remarks, this chemist states the process which he conceives to be the best and most economical for preparing the Phosphate of Soda. He then proceeds to observe that the Phosphate of Ammoniac frequently will not crystallize, in consequence of an excess of acid resulting from a partial decomposition

position of the salt caused by heat during evaporation. In such a case, the liquor, if found to be acid, must again be neutralized by ammoniac.

Experiments and Observations on the Colour which Lemon-juice communicates to Paper when heated. By Dr. CARRADORI DE PRATO. — It appears from these experiments, 1st, That this property is not peculiar to this acid, because verjuice, vinegar, the juices of *Oxalis Acetosella*, and of *Euphorbia Caracius*, &c. &c. produce the same effect. 2dly, That sugar possesses this property in an eminent degree. 3dly, That all the vegetable acids or juices, which contain sugar or saccharine mucus, also partake of this property more or less, according to the proportion of this substance. 4thly, That, when lemon juice is deprived of the saccharine mucus, it causes scarcely any change of colour on paper when heated. 5thly, That the above property, therefore, exclusively appertains to the sugar, or saccharine mucus, present in the vegetable acids and juices. 6thly, Dr. CARRADORI is of opinion that the effect is produced by a slight degree of combustion, which volatilizes part of the hydrogen of the sugar or saccharine mucus, and leaves the carbon exposed.

On the Strength of the Acids of Commerce. By M. DELATRE. — From the whole of this paper, the opinion of the author appears to be, 1st, That, in the weak muriatic acids, or those which are much diluted with water, the excess of the specific gravities in respect to water are nearly in proportion to the quantities of the gas dissolved in water, and consequently ascertain the strength of the acids by a direct proportion; — 2d, The densities of the acid in water are greater in proportion as the quantity of it is smaller; that is to say, that the muriatic acid being always influenced by two affinities, viz. water and caloric, the first cannot be diminished by the progressive effect of saturation, without the re-establishment of the second; so that, in fact, the last portions of muriatic acid consist of gas interposed between the molecules of water.

Observations on Barytes and Strontites. By M. PAISSE. — This gentleman here gives an account of some experiments, from which he is induced to believe that caustic barytes and strontites cease to be caustic after exposure to a strong heat; he is therefore inclined to attribute this property to the nitric acid with which they had been previously combined; and he suspects that azote is the principle of causticity in many bodies.

A few other articles contained in these numbers we have been obliged to omit, in pursuance of our established regulation;
APP. REV. VOL. XXXVI. K k which,

which, in general, only allows us to notice such papers as are original, and as suggest some practical remark, or may lead to farther useful investigations.

ART. VI. *Traité des Differences et des Series*, &c. i. e. A Treatise on Differences and Series, being a Supplement to the Treatise on the Differential and Integral Calculus. By B. S. F. LA CROIX. 4to. pp. 582. Paris. 1800. Imported by De Boffe, London.

THE large work of M. LA CROIX on the Differential and Integral Calculus has been already noticed by us*. The present supplement is scarcely inferior in point of bulk to the preceding volumes; and if all *great books be great evils*, this author has terribly burthened the scientific world. Of such afflictions, who have a juster right to complain than Reviewers; who are compelled to cater for the public, to taste of every dish prepared for it, be it savoury or be it nauseous, and, in quest of truth and entertainment, sometimes to wander in the gloom of obscurity, and sometimes to be entangled in the mazes of sophistry?

After the specimens already offered to us, we needed no new proof of M. LA CROIX's indefatigable zeal and assiduity. So extensive a compilation as the one before us, indeed, we may venture to affirm, does not exist in any language; and in order to form it, almost all preceding Treatises, Transactions, &c. have been examined. Its matter is so various, so extensive, and so abstruse, that, instead of attempting an analysis, which at best must be imperfect, we shall briefly state the subjects treated, their order, and, with one or two particular observations, subjoin our opinion on the general merit of the work.

Chapter 1. treats on direct calculus of differences, and its application to the interpolation of series; on the inverse calculus of differences, relatively to explicit functions; on its application to the summation of series, and to the summation of series by interpolation; on the integration of equations of differences of two variables; on the nature of arbitrary quantities introduced by the integration of equations of differences, and on the construction of those quantities; on the multiplicity of integrals, of which equations of differences are susceptible; on the integration of equations of differences, consisting of three or more variable quantities; on the equations of condition relative to the integrability of functions of differences.

Chap. 2. contains the theory of series deduced from the consideration of generating functions.

* See Appendixes to Vols. 31 & 32 N. S. of the Monthly Review.
Chap.

Chap. 3. gives the application of the integral calculus to the theory of series, and to their summation and interpolation; an investigation of the values of definite integrals, and of series proper to give the value of integrals that are functions of great numbers; an exposition of the uses of definite integrals to express functions given by differential equations, &c.

Chap. 4. on equations of mixed differences; here we have their analytical theory, and their application to geometrical questions.

Of all the information which books could afford, we have already observed, M. LA CROIX has availed himself; and it is certainly proper for an author to be acquainted with the labors of preceding writers on the subjects which he designs to discuss. In abstract science, however, this rule may be less strictly observed: indeed, it certainly is less strictly observed; and *D'Alembert* said that mathematicians were very little acquainted with mathematical works. As it is vain to expect perfection, very extensive reading, and much original invention, we wish that M. LA CROIX had devoted part of the time which he has spent in learning what others had thought and invented, in simplifying those theories which are perplexed and involved; and in rendering many demonstrations more direct and rigorous than they are found to be in his treatise. At the conclusion of our observations on his former production, we entered into a short discussion of the respective advantages of the fluxionary and the differential calculus; and by a note to the present work, we find that the author's opinion coincides with our own. He animadverts on the change of notation introduced by *La Grange* in his analytic functions, and in his treatise on the resolution of numerical equations; and certainly such a change appears to be unnecessary and inconvenient. It is true that no alteration is made in the principles of a method by a difference in the notation: but it is desirable to relieve the mind in calculation; and there does not seem to be a more effectual way than that of simplifying the system of signs, by which the process of deduction is carried on. Whether the notations in the differential calculus be more commodious than in the fluxionary, can only be known by observing them in their application to different cases: such an application we have already made: but, although M. LA CROIX supports us in our opinion, yet we find not, in what he has said, any such confirmation as deserves to be particularly noticed.

The present treatise does not abound with very many acute reflections, nor with comprehensive views of the nature, progress, and possible future advancement of analytic science: yet it contains some which are worthy of notice, and which, amid the maze of analytical operations, tend to invigorate the tedious-

ness of calculation; as in pages 174. 460. 483, &c. We may therefore conclude, not that such reflections and views displeased M. LA CROIX when they occurred, but that they did not frequently present themselves *. If we may conjecture the turn of the author's mind from some passages in his former work, and from the general style of his composition, it is not such as would make him linger over demonstration, in order to render it more luminous or more exact: "If it were done, when 'tis done, then 'twere well it were done quickly †." The author appears to us to belong to that class of mathematicians, whom the facility of modern calculation has engendered: who are desirous "to operate rather than to know," and who look more to truth of result than to justness of inference. The ease by which modern analysis obtains its results is certainly, in our opinion, one of the causes which tended to the neglect of evidence and rigour of demonstration; and another cause is the disgust created by the foolish subtleties and vain refinements, into which certain metaphysical mathematicians have been betrayed: but why rush from one extreme to another? All examination of principle does not necessarily degenerate into unsatisfactory subtlety; nor does all discussion inevitably terminate in vain refinement. Because men striving to reason well have reasoned ill, are the rules of an exact logic to be thrown aside? Is there to be no weighing in the scrupulous scales of accurate metaphysics, because things are judged equal by the gross decision of sense? The cautions of those who tell us to beware of metaphysical subtleties are to be heard, indeed, but heard with suspicion; and some authors who, with politic regard to their own works, have warned their readers against the nice and curious examination of principles and methods, deserve no higher rank than that of "rude mechanicals" in science;—mere men of the loom and mill, who, if that which they put in comes out stuff and flour, care not by what means and contrivances the process has been conducted.

To express our judgment of this work more formally and succinctly is unnecessary; the parts of that judgment are mingled with our preceding observations; and we feel no wish either to add to them, or to take away from them. In a longer discussion, indeed, we could have done more ample justice to M. LA CROIX, and have afforded a more complete view of his treatise: but the frowns of a numerous class of readers check and forbid the frequency of extensive mathematical discussions; and, in an-

* "*Non illi displicuisse jocos, sed non contigisse.*"

† Shakspeare's Macbeth, act 1. scene 7.

other part of this Appendix, we must pay our respects at some length to an important publication on the Calculus of Derivations, by M. ARBOGAST.

ART. VII. *Histoire du Général Moreau*, &c. i. e. The History of General Moreau, to the Peace of Luneville; containing an Account of his Life, of his Campaigns on the Rhine and in Italy, with Anecdotes and Traits of that Greatness of Mind, Genius, and Bravery, by which he is characterized. 12mo. pp. 250. Paris. 1801. Imported by De Boffe, London.

IT is probable that the hero, who is the subject of these pages, is great only as a soldier, and that nothing relating to him in any other view deserves to be consigned to the press. Be this as it may, however, it is certain that the work before us contains little that respects him but as a soldier, though the title page led us to expect something more. To speak of him in this light;—it is the opinion of the best judges that he is the ablest General who has appeared in the late wars. He is said also to be modest, and a stranger to factions; and he manifested conduct interesting to humanity, and to the first personages in this country, when, in the face of the infernal decree of those monsters who composed the Committee of Public Safety, he ventured to save the garrison of Nieuport, consisting almost wholly of Hanoverians: for which indulgence he would have answered with his life, had not those wretches, in the mean time, paid the forfeit of their crimes.

Victor Moreau, we are here told, was born at Morlaix in 1763, and studied law at Rennes, where he was admitted to the degree of advocate. The writer says that he will not stop to detail the particulars of *Moreau's* infancy, nor those of his youth; because, as they possess no superior interest, they cannot enhance his merit, nor impart any new lustre to his history. When his department raised a battalion, the interest of *Petiet*, since minister of war, and now counsellor of state, gained for him the appointment of its commander. His rise was afterward rapid; till, in the year iv. he was made General in chief of the army of the Rhine and Moselle, at which period the present history commences its details. It would have been interesting to have given us some insight into the mode by which *Moreau*, after the age of manhood, so speedily made himself master of a new art, wholly distinct from his former pursuits: but no such information here occurs. We say *master of a new art*, because of all the French Generals of the present day, he is allowed to possess the most *military science*; and not to have succeeded solely by the powers of *genius*, and the assistance of

adventitious circumstances. The work forms, however, a neat, and, we believe, an accurate recapitulation of the operations conducted by this celebrated officer; and it will be read with pleasure and instruction by persons who are skilled in military science, and in the geography of the countries which were the theatres of action.

Having detailed *Moreau's* achievements in his march from Mannheim to Munich, the author adds; 'we are now to see him run a career more difficult and more perilous. Every where surrounded by enemies, and exposed to the greatest dangers, he commenced his famous retreat; which is not less admirable on account of the firmness of the soldiers, than the genius of the chief who directed it, and which will be quoted in all ages as a real prodigy.'—'The attention of Europe was fixed on this brave army, and its General; and the enemy reckoned on its certain capitulation: while *Moreau*, by scientific combinations, by his address in drawing the utmost advantage from the excellent dispositions of his troops, and their undaunted courage, disappointed their expectations, and maintained and augmented his own fame. After a march of a hundred leagues, amid a thousand difficulties, covered with glorious trophies and brilliant victories, which rank this retreat among the most brilliant operations of which history makes mention, he conducted his army to the frontiers.'

A very interesting detail of the siege of Kehl is next inserted. It is here said that the brave resistance made by *Moreau* and *Dessaix*, in this fortress, occasioned the surrender of *Mantua*; certainly, *Dessaix's* address in obtaining terms is not less admirable than his bravery in defending the place. The French were allowed a certain time to remove whatever they chose; and their alacrity and activity on this occasion, considering the hardships of the siege which they had undergone, appear wonderful. They left nothing behind them except the bare walls, but carried away every thing; even the palisades, and the balls which the enemy had thrown; and the Austrians who observed them were lost in astonishment, while the French openly said to them, in German, *we will not leave thee a nail*.

The author informs us that *Bonaparte* and *Moreau* had never met, till after the return of the former from Egypt; that they received each other with frankness, and testified great reciprocal esteem; that they were above all jealousy; and that *Moreau* entered fully into the measures of the *dix-huit Brumaire*. The writer says nothing respecting the coolness which is reported (perhaps falsely) to have since taken place, between these two conspicuous characters.

A portrait of *Moreau* is prefixed to this little work. It presents a countenance not altogether very prepossessing, but indicative of thought and of talents. We know not whether it can claim the merit of accurate resemblance.

ART. VIII. *Pouvoir Legislatif, &c.* i. e. On Legislative Power under Charlemagne. By M. BONNAIRE DE PRONVILLE. 8vo. 2 Vols. pp. 200 in each. Brunswick. 1800. Imported by Dulau and Co. London. Price 10s. 6d. sewed.

THE authors of the Helvetic Revolutions of the fourteenth century, as we learn from Mr. Planta's excellent History*, founded their claims on prescription: the champions of the people in England, at a later period, proceeded on similar grounds; and even the more early of the French assertors of the popular cause did not disdain to press antiquity into their service, to set up a sort of *hereditary* right to liberty, and to deduce a kind of legal title to certain political prerogatives, from the records and memorials of remote times. Hence they made themselves the descendants of those Germans, whose liberties the matchless pencil of Tacitus has sketched. The courts and synods of the Merovingian and Carlovingian kings were described as legislative senates; the commonalty was represented as raised to a share in the legislation, by the House of Pepin; and the monarchs were said to be absolute at the head of the army, but under the controul of law as civil chiefs.

M. DE PRONVILLE (who, we think, appears to have been bred a lawyer, and was perhaps a member of parliament under the *ancien régime*), regards all this as "the baseless fabric of a vision," conjured up for the purposes of innovation, and originating rather *in malâ fide*, than in ignorance and self delusion. The professed object of the present work, therefore, is to strip off the mask from these artificers of revolutions, by detecting their misrepresentations, exposing their errors, refuting their conclusions, and putting the world in possession of the real facts. He disclaims, on the part of the Franks, any affinity to the free tribes of the Roman historian; and he thinks that the assemblies, with which we see the kings of the first and second race so often act, were merely called together to render an account of their administrations, to give information to the monarch respecting the state of his dominions, to listen to his reprehensions and admonitions, to learn his future pleasure, to be made sensible of their subject condition, to repledge their fealty, and to serve as pageants to reflect lustre on the court of

* See M. R. Vol. XXXII. N. S.

their prince; who was the sole depository of all authority, as well legislative as executive.

If, when reading *Boulainvilliers*, *Dubos*, and *Mably*, we readily accede to the remark that neither mere literati nor mere lawyers are competent to inquiries of the nature of that which is here proposed, we shall not be less of that opinion after a perusal of this author; whom we consider as chargeable with faults which inveterate legal habits alone can excuse. He is not deficient in either learning or ability: but of what use are these qualifications to a partisan? They enable him only to plunge himself deeper into error, and to mislead others more successfully. Though most of the points discussed in these pages, *mutatis mutandis*, have been very ably sifted in our own country; particularly by the advocates of the Tory side, who, both as to learning and the strength of their positions, had a decided superiority over their Whig antagonists; yet the observing reader will occasionally discover particulars of great interest, tending to illustrate the neglected subject of our own legal antiquities.

M. DE PRONVILLE briefly considers the situation of affairs under the Merovingians, as it affects the question which he discusses. The code of one of the Merovingian kings is thus prefaced; "*Hoc decretum est apud regem & principes ejus, & apud cunctum populum christianum qui infra regnum Merovingiorum consistunt.*" This passage, taken in its more obvious sense, in the present writer's estimation, ill accords with a limited monarchy. His comments on it will be easily guessed by the readers of our Brady.

The title of the salic law in the documents of this period, *pactus legis salicæ*, is grating to this Antiquary. A pact supposes two parties, who treat on equal terms, and who must severally concur in order to give the pact force:—how is this to be reconciled with the *absolute legislative power* of Clovis and his descendants? Such phraseology must be displeasing to our fashionable politicians, the impugnors of the social compact; who release governors from the annoyance of inconvenient restraints, by complaisantly allowing to them the wide range of *utility* and *general good*: but, for their gratification, we shall copy the ingenious and learned solution of the difficulty which the present author has borrowed from Hertius. 'The term *pactus* appears to be derived from the German word *pack*, *packen*; so that, in bad Teutonic, *pack du droit salique*,—in bad Latin, *pactus legis salicæ*;—and in the language of the bar, *corps* or *code du droit salique*,—are terms perfectly synonymous.' The reader may feel anxious for the second term, lest it should undergo the torture to which the first has been subjected; for why should *lex* be more favoured than *pactus*? The turn of *lex* is not yet come: but,

but, anon, we shall see it pass the alembic. There is no objection to it here in its usual sense.—After this, need the present writer, this Alexander in criticism, dread any hostile passage which old records may contain?—M. DE P. is not very complaisant to his adversaries. He complains that they reason inconclusively, express themselves equivocally, wilfully confound times and occasions, place an usage within one period which belongs to a different one, represent facts which happened under one reign as falling under another, set up the exception as the rule, reduce the rule to an exception, blend together things between which there is no sort of relation, and, by these practices, support such inferences as best answer their purposes. That charges of this nature may lie against many who build hypotheses on antient facts, we fully admit: but whether they apply in any degree to this author himself, we shall not presume to decide.

According to M. DE P. the word *champ* of old meant not *field* but *camp*, and the assemblies of the *Champ de Mars* and the *Champ de Mai* dwindle into mere military assemblages preparatory to the campaign, where no civil councils whatever were holden. The councils, in which the laws were promulgated, were not holden in fields, but in the royal palaces; and no capitulary, one excepted, bears the date of either March or May.—It must be admitted that he adduces very strong proofs to shew that the term *populus* was used to express councils, to which none but the immediate vassals of the crown were admitted: but in this controversy, the English reader will find only what he has seen asserted by Brady, and adopted by Hume.—Capitularies, we are told, were issued in years in which history makes no mention of any council or *placitum* being holden.

Hincmar's celebrated letter, about which the present author makes so great a shew of candour, suggests (in our opinion) conclusions very different from those for which he contends. The powers, we grant, were not nicely balanced: but we think that it might be shewn, from this document, that the higher magistrates and vassals had a voice in the legislation; that the inferior magistrates, and persons of consideration, (the *prud-hommes*) had an influence over it; and that, if there was not a regular *tiers état*, still the popular voice was not without weight. The venerable prelate's epistle, here quoted, would furnish an excellent text for a comment, in which might be very aptly discussed all the points of the controversy revived by M. DE PRONVILLE.

Another text, which calls forth the zeal and exercises the ingenuity of this writer, is the capitulary of 819. "*Vult Do-*
minus

minus Imperator ut in tale placitum quale ille nunc jusserit, veniat unusquisque comes, & adducat secum duodecim scabinos, si tanti fuerint; sin autem de melioribus hominibus illius comitatus suppleat numerum duodenarium, & advocati tam episcoporum, abbatum, & abbatissarum ut eis veniant."—Without laying undue stress on this extract, we may safely say that it can hardly be reconciled to that utter exclusion of popular interference in legislation, for which a certain faction has contended.

Much learning is thrown away by M. DE P. when he argues the improbability that so politic a monarch as Charlemagne would remit any part of his prerogative, in favour of the nobles and higher clergy. It has never been asserted that he did. What the Abbé de Mably maintained was, that he raised the commonalty to a share in legislation; and this is perfectly compatible with the jealousy which he is said to have entertained, with respect to the two higher orders of his subjects. The Merovingians, we are told, did not avail themselves of the wise example set by Constantine, not to invest the same man with the chief civil and military power in a province: but, in opposition to it, they put both swords into one hand. They were not long, however, in discovering the impolicy of this conduct; and they endeavoured to repair its ill effects by obliging these chiefs to pay them, on all occasions, the most abject obeisance: they took their eldest sons to their courts, under the pretence of educating them, but in fact to hold them as hostages; they constituted themselves their guardians, if the father died, and seized the profits of their tenures; and they made it a rule never to confer on the son the dignity which his father had enjoyed. All these precautions, it is said, were barely sufficient to keep these sturdy chieftains in subjection.

M. DE P. enters also into a very profound disquisition on the classes of the capitularies, and the titles which they bear; stating the times at which they were collected, and by whom. He would have rendered his account less faulty, had he seen the valuable posthumous work of President Hénault, lately published, (See our last Appendix).

On considering attentively the author's mode of arguing in his fifth chapter, we are convinced that he would be able to shew, from the varying phraseology of our antient statutes, from the composition of them, and from the terms applied to the King, the Lords, and the Commons, that the legislative power rests solely in the British monarch:—supposing him to have no other light than what is to be drawn from the statute book itself.

We are next favoured with learned criticisms on the term *lex*; which, says the author, is employed to signify *usages, tribunal,*
and

and *fine*; and in this assertion he is undoubtedly founded. He then explains the difference between capitularies and capitulary laws.—The nineteenth chapter of the third capitulary of 803 now comes under consideration; in which these words occur: “*Ut populus interrogetur de capitulis que in lege nostra addita sunt, & postquam omnes consenserunt, subscriptiones & manifestationes suas in ipsis capitulis faciant.*”—*Ut populus interrogetur, omnes consenserint, subscriptiones faciant*;—these words sound oddly, but they are made to bend to the author’s hypothesis. The word *interrogetur* means a sort of daring; and the word *consenserint* signifies unqualified submission! Will any man, except a member of the *fidévant* parliaments, now presume to say that he understands the meaning of words used in antient documents?

From the zealous efforts which M. DE PRONVILLE makes to exclude the nobles and the people from all share in legislation; from the horror which the notion seems to excite in him; and from the following passage, which he quotes with approbation, we may form a fair guess what was meant by a *good subject* under the *ancien régime*,—the failure of the restoration of which was, on a late great occasion, so eloquently bewailed. It is the Emperor Basil who thus speaks, at the eighth council of Constantinople: “With regard to you, laics, whether you are invested with dignities, or are private men, it is not permitted to you to dispute on ecclesiastical subjects; that belongs only to the bishops. Whatever science, whatever virtue, a laic possesses, he is but a sheep: however slender may be the merit of a bishop, he is always shepherd, while he teaches the truth. Beware of judging your judges, and live in submission.”

The author’s criticism on a passage taken from the edict of Pistes, on which great stress has been laid, is not less satisfactory than it is learned and ingenious; and we regret that our limits will not permit us to state it.

M. DE P. supports his positions on the ground of the incapacity of the Nobles to form any check on the royal power, on their fiefs being for life, on the royal right of succession to their moveables, on that of wardship, and on that of disposing of their children in marriage. An assembly of men thus circumstanced, we are told, would be ill adapted to constitute a branch of a legislature.—We shall only observe that the argument holds equally against our antient House of Lords.

We seldom receive from the continent a work so well printed, and on such fine paper, as are these volumes; which reflect much credit on the press of M. Fauche, of Brunswick.

ART. IX. *Essais Historiques sur les Causes & les Effets de la Revolution de France, &c.* i. c. Historical Essays on the Causes and Effects of the Revolution in France, &c. By C. F. BEAULIEU: 8vo. 2 Vols. pp. 500 each. Paris. 1801. Imported by De Boffe, London. Price 14s. sewed.

THE reader of these historical essays will find the great events of the French Revolution described by an able hand; he will perceive that several matters, which were before obscure, are here cleared up; and he will with pleasure follow the author in his details of some interesting points, over which other writers have passed without any, or with slight notice. In an extensive introduction, M. BEAULIEU exhibits to our view the different revolutionary scenes, in colours deeply, but we cannot say too deeply shaded; hence his bias becomes visible; and it will be difficult for his readers to abstain from partaking of it. A perception of this bias, therefore, awakened our caution, and occasioned us to proceed with more than ordinary vigilance. The awful visitation, perhaps not yet finally closed, is too recent to be surveyed with due coolness and treated with perfect impartiality, even by spectators; how, then, can it be thus contemplated by its immediate objects, by those who suffered from the deadly hatred of the most odious and contemptible of the instruments employed! On farther acquaintance, however, with the present writer, we discovered that he was a man of a naturally well balanced mind, and correct feelings; claiming only those allowances which the best nature in the same circumstances would require. Though he gives very decided opinions on abstract questions, and speaks strongly respecting measures, he neither undervalues the talents nor impeaches the worth of men because events have shewn them to have been deceived, or to have been unfortunate. The characters of *Necker*, *Lafayette*, *Mirabeau*, and *Barnave*, were perhaps never more justly appreciated than in these pages, where most of their proceedings are censured; and where also a very correct account is given of the ill fated monarch himself: who certainly possessed very laudable and virtuous dispositions, but who wanted the firmness and energy which alone could call them into vigorous and effectual operation. Never was a prince thrown on perilous times, so ill qualified to brave them!

To return to the Introduction. The considerations which militate against the subversion of antient institutions are here stated in a manner which reflects much credit on the writer, and which intitles them to the utmost attention. The fabric, against the demolition of which he vehemently inveighs, he yet owns was tottering; and he admits that the succession of ages, which

which had rendered it venerable, had rendered it also crazy. Speaking even as its advocate, he tells us that its downfall was prepared by the freezing poverty resulting from the extravagant enterprizes of Louis the XIVth, by the inconsistent measures of the regent, by the destructive projects of *Law*, by the infamy of the latter years of Louis the XVth, (by which not only the individual suffered, but the monarchy itself, and particularly the next and last successor to it,) by the decay in the honour of the order of nobles, by the parties into which it had split, by the sale of titles, by the irreligion of the higher and the dissatisfaction of the lower ecclesiastics, by the corrupt conduct of the tribunals, by the hostility of the mercantile body, by the disaffection of the Protestants, by an irreligious and levelling philosophy, which had gained the ascendancy in the capital and in the great cities of the country, and by the financial derangements, which obliged the government to call a meeting of the States General. The *Cabiers* even of the nobles and clergy instructed their deputies, among other things, to *establish a good constitution*: its necessity seems to have been felt by, and to have actuated, the sound and respectable part of the French public; and the most moderate were willing to proceed to lengths which would now stagger the most ardent. If we would judge fairly of the men and the measures, we must place ourselves in *their* situations; and without doing this, we cannot appreciate justly the great event in which they were concerned:—an event which, in its first stages, forcibly attracted the attention of the curious; and from which they still find it difficult to withdraw their regards: while the professed politician is obliged to study it, because the present hangs on the past, and the politics of Europe can be investigated only through the horrors, the caprices, and all the strange scenes, of which Paris has been the theatre. Though the result of the labours of the first assembly deserves little respect, yet, in the course of them, numerous questions in political science underwent the most able discussions. By the struggles of parties, during the several periods of the grand concussion, abundant instruction is furnished; and we are strikingly taught what the circle of a revolution is. It originates in real weighty grievances; wise and good men commence the work of removing those evils; they are pushed farther by events than they intended to go; they then resign their places to men of less delicacy; and these are succeeded by persons still worse; till, at length, the ascendancy rests with those who are the least under the restraints of honor, conscience, and humanity: when the people, in the end perceiving that they cannot use their power but to their own prejudice, are glad to exchange anarchy for despotism, and

willingly

willingly resign themselves to any master who is powerful enough to enforce obedience and subjection.—Such is the difficulty attending the amelioration of mankind!

The essays before us commence with the usual topics; the detestable policy of old *Maurepas*, the imprudence and extravagance of *Calonne*, the presumption and utter incompetence of the atheistical Cardinal, the career of *Necker*, the struggle with the parliament, the troubles of Brittany and Dauphiny, and the discontent of the Duke of *Orleans*, on account of the Queen's interference to prevent his having the reversion of the place of Grand Admiral, and her breaking off the promised marriage of his daughter with the Duc d'*Angoulême*. The author next treats on the meeting of the dread assembly of the States General, which took place on the fifth of May 1789; on the contests which arose between the *tiers-état* and the nobles, concerning the mode of voting; and on the final complete triumph of the former.—It is a circumstance of a most extraordinary nature, that the king favoured and sanctioned the two measures which gave to the assembly its peculiar character, and which enabled it to act a revolutionary part; namely, the double representation of the *tiers-état*, and the voting not by orders but in one assembly. It also appears that, influenced by *Necker*, his Majesty had agreed to adopt and support a constitution formed on the principles of the British system.

The author's account of the description of persons, who constituted this celebrated assembly, will probably be interesting to our readers.—The States General, he says, were composed; 1st, of 48 archbishops and bishops, 35 abbés or canons, and 208 curés, for the Clergy; 2dly, 242 persons of rank, among whom were many peers, a great number of the heads of the first families of the kingdom, and 28 of the judges of the sovereign courts, for the Nobles; and 3dly, the third estate counted 2 bishops, 12 persons of rank, 18 mayors or consuls, 162 magistrates, 210 advocates, 16 physicians, and 166 merchants and cultivators; all persons of consideration in their respective stations, possessed of talents and character, and such as the author calls *the chosen of the French*. He then proceeds to observe, 'yet these were the men who commenced the overthrow of their country! what could have been their motive in preparing this destruction? They all hazarded their lives, a great number risked high dignities, and almost all staked considerable fortunes.' He ascribes this conduct to the assembly being too numerous, to the preponderance of the *tiers-état* and the inferior ecclesiastics, and to the progress which a levelling spirit had for some time been making.—The solution of the author's problem may, in our opinion, be deduced from the

visionary spirit of the more effective part of the assembly, viz. such men of high character and influence as *Larocbefoucauld*, *Lafayette*, *D'Aiguillon*, the *Lameths*, and *Barnave*; from the pride of the aristocratic party, which made it yield to passion rather than bend to circumstances; from the secession of many of its members; from the refusal of those who remained, to co-operate with the moderate revolutionists, in opposition to the demagogues; from the death of *Mirabeau*; from the untimely dissolution of the assembly, before a trial had been given to the new constitution; and from the decree of the noneligibility of its members into the new assembly. The machinations of the Orleans faction also form a cause, the force of which has not hitherto been fully ascertained.

M. BEAULIEU's description of the triumphs of the assembly at the *Jeu de Paume*, and at the conclusion of the *Séance Royale*,—of the critical situation into which its subsequent bold conduct brought it,—and of the firm establishment of its power in consequence of the events of the fourteenth of July, will be read with considerable interest.

A singular phenomenon now presents itself! An omnipotent assembly, clothed with every attribute which imposed respect, and intrusted with the sacred deposit of the future destinies of its country! What a career for wisdom, moderation, and unanimity, could beings possessed of such attributes have been found!—We have already enumerated the principal causes which, in our judgment, occasioned the disappointment of the world; and which led the way to the miseries that followed.

After the memorable fourteenth of July, we are told, all the great personages, who had combined their efforts to dissolve the assembly, saw themselves without hope; in the state of things about to take place, they could only look forwards to mortifications, and perhaps to greater calamities; they felt themselves without consideration, without influence, in a court dependent on new men, whom they had hitherto beholden at an immense distance from them; and their imagination revolted from the thought of remaining in such a situation. Swayed by selfish feelings, and influenced by fear, they resolved to quit France; which, in its novel situation, they could not endure as a residence. Such were the motives which determined the first emigration; while more solid reasons gave rise to subsequent desertions. The Comte *d'Artois*, on whose head a price had been set, could escape only in the dead of night, and under a strong escort; the Prince of *Condi* was saved by the fleetness of his horses; while the Prince of *Conti*, less observed and less feared, met with no obstacle in his way to the frontiers.

(P. 565, Vol. 1.) A very entertaining part of this work respects the public journals; the characters of which, and of their authors, are drawn with great neatness and fairness. We shall notice one only, named *le Point du Jour*, of which the famous *Barrère* was the editor; which gave an analysis of the debates of the assembly, ably executed; and which was conducted in a manner highly decorous, and every way respectable. Although a partisan of the revolution, the editor never addressed his adversaries with rudeness; his journal was even remarkable for the most profound respect for the king, whose virtues it never failed to celebrate on every opportunity that offered: in one word, adds M. BEAULIEU, it must be incredible, except to those who knew the identity of the persons, that the *Barrère* of 1789 was the *Barrère* of 1793. To us this appears no way extraordinary. This prostitute orator is only a copy; the original existed in this country, and is famed in song. *Barrère* has been always loyal to the ruling power, whether that power resided in Louis XVI, *Robespierre*, or *Bonaparte*; and we may venture to say that "*whatsoever king shall reign*," he will find in gentle *Barrère* a most dutiful subject. We do not recollect him in the train of *Brissot*, because *Brissot's* throne was never firm.

The revolutionary chiefs of this period appear to have resembled too many other political leaders, in thinking that, when the end is good, scruples respecting the means are not to be indulged. Hence, some instigated and all connived at insurrections, by which many lost their lives, and great numbers were deprived of their habitations and their property. *Lally Tollendal*, *Clermont Tonnerre*, *Mounier*, and *Malouët*, to their eternal honor, reprobated these enormities, and held them up to the notice of the assembly: but the assembly, to its everlasting disgrace, took no steps to repress them; and men, to whom until that period no stain belonged, were on those occasions mute:—they have since paid the forfeit of their criminal silence.

A plan of constitution, modelled on that of England, was a favorite idea with many politicians. The following is a summary of the arguments used against it.—"In England, (it was said,) the Nobles are not numerous; they are magistrates with fixed functions; nobility is confined to the heads of each family, and draws not after it the political consequences which result from its existence in France. The national will is complete without it; and the people, far from being regarded as a third, or a half, form a whole by themselves. If we are to imitate the English, we must reduce our forty thousand noble

families to two hundred individuals; and we must annihilate the moral and political effect of the nobility, by rendering it transmissible only to the eldest son: let us form of it an assembly of dignitaries, but we cannot regard it as a fraction of the national assembly.'

In detailing the extraordinary proceedings of the fourth of August, M. BEAULIEU insinuates that the mighty senators were more than *metaphorically* intoxicated. In the course of that night, all the feudal rents, dominations, and privileges, were swept away by decrees, moved and urged by the first nobles;—men to whom the largest share of them belonged;—so that nothing was left to distinguish the members of this lofty order from the commons, but their titles, which had already dwindled into mere shadows, and which were soon to undergo the fate of the substance. *Mirabeau* insinuated, at the time, that this sacrifice originated in a motive very different from patriotism; namely, in a desire of bringing the assembly and its proceedings into disgrace, in the hope of overturning its authority, and re-establishing the former order of things.—These measures raised a body of new enemies to the assembly, and new plots for its overthrow were invented; which, in the end, served to strengthen its authority, and to render still more impotent the tottering monarchy. M. BEAULIEU is too manly to deny the object of the feast given to the *Gardes-du-corps* on the 23d of September: but he justifies the principle, though he does not assert the prudence of that measure. The fermentation which this fatal repast occasioned, the horrors which the day and night of the fifth of October produced, and the commencement of the king's captivity on the following day, are events too memorable to be soon forgotten. The author is fully satisfied that the Duke of Orleans and *Mirabeau* were concerned in these transactions.

We regret that our limits will not permit us to take particular notice of the writer's excellent remarks on the conduct observed towards the clergy, on the issue of assignats, and on various other topics: but we must copy the following picture of France, in the year 1790, which will shew many persons how much they were deceived respecting the situation of the country at that time.

'The whole nation was in an agitated state; following the example of a King who had almost ceased to exist, it takes the oath to a constitution which was not in being; it swears to be free, and torments itself every way by persecution and self-oppression. Freedom of opinion and even of action was the universal cry, while they were all abusing and fighting each other on account of opinions; and actions the most indifferent were construed into state crimes. Military subordination was denounced as a system of aristocracy; all the national

forces by land and by sea were in a state of revolt, either dismissing or murdering the commanders; the garrisons were without soldiers, and the fleets without sailors; the whole nation was in arms, though Europe was at peace; and the government alone was without authority. The religion of the kingdom was now only a lamentable schism; priests joined the persecutors of priests, to rob, to despoil, to exterminate their own order: delirium reigned in every brain, and the flames of hatred were kindled in every bosom. In one place, they arm to defend the constitution; in another to destroy it.—Every thing is overturned; all regulations are violated; and even the precious metals disappear, and their place was supplied by frivolous paper money, which was calculated to dissolve all social bonds.

At one period, the National Assembly appeared powerful and independent, like the senate of Rome in the days of the Scipios. Here *Mirabeau* found scope for the display of all his talents, and an opportunity of satiating at once his love of vengeance and his love of glory; here his eloquence laid prostrate the first European monarchy, and annihilated the proudest aristocracy which the world ever knew; here the orator braved the factions which were his former instruments, dissolved as by a charm the resistless hordes which had vowed his destruction, and caused the weapons to fall to the ground from the hands which were prepared to assassinate him. It has been very justly said that he ought to have lived longer, or never to have lived at all. The loss which France suffered, on the death of *Mirabeau*, is not to be estimated; for, looking forwards to the calamities which actually happened, of him it might be said,

*“ Si Pergama dextrâ
Defendi possent, etiam hæc defensa fuissent.”*

Because we thus do justice to the gigantic abilities of this singular man, to the influence which he thence obtained over the fate of the revolution, and to the worthier designs which he cherished near the close of his career, let it not be imagined that we wish to disguise his immoralities and his vices, which, unfortunately, were not inferior to his talents. We shall conclude this article with the able summary of his character, which we find in the work before us.—Having come to an understanding with the king, the author says,

‘ *Mirabeau* daily redoubled his activity at the assembly, and among the Jacobins; and every where he opposed himself to the storm. *I will combat the factions*, said he, in the tribune of that club, *among whatever party, and under whatever form they appear*. It was at this time that he was carried off by a violent malady, in the full vigour of life, having scarcely reached the age of forty. It was said that he was poisoned, and many persons still believe it: but this fact never has been, nor ever will be proved; his body was opened, and the faculty declared that they found no trace of poison. Those, who do

not

not ascribe his death to a revolutionary cause, consider it as occasioned by his excessive debaucheries.

This man was, beyond dispute, one of the most extraordinary personages of the latter part of the eighteenth century. In the violence of his passions, which were all extreme in him, and not in baseness of heart, are we to look for the sources of his vices. He had a father extremely harsh, who tyrannized over his haughty character; formed for independence, he rebelled against this father; the authority of the king was employed to persecute him, and he swore to destroy that authority if ever an opportunity should offer. The nobles imprudently rejected him from their class, and he put himself at the head of the *tiers-état* to overthrow the order of nobility; which he hated not in itself, for he was fond of his title of *Comte*, which he never omitted in his signature. At the beginning of the revolution, he offered his services to the king: but M. *Necker*, a little too scrupulous in his ideas of morality, when a critical question in politics was in agitation, caused the offer to be rejected in a humiliating manner: he therefore brought *Necker* to the ground, and inflicted the most terrible blows on the royal power. *Mirabeau* was a demagogue from vengeance, and a royalist in principle; revolutionary through ambition, and a conspirator in order to save his own life. Like all those men who have been the victims of arbitrary power, liberty was the object of his adoration; like all those who are torn by violent affections, and who are not restrained by religion, he sought every species of enjoyment, exhausted all the powers of gratification, and tarnished the glory of his great talents, by ministering to the caprices of his passions.

With a temperament and a soul of fire, he had the eye of an eagle, and a countenance horribly scarred; his voice was strong and sonorous, and he had the power of regulating its inflexions in the most expressive manner. It is impossible to conceive the force which this address in declaiming gave to his speeches; and those only who heard them can form a just idea of it. In private society, he was extremely amiable; he played like a child with his friends, whom he truly loved, and who were most sincerely attached to him. His conversation was full of pleasantness and gaiety. He would joke with those around him, even in the assembly, play them tricks while he was listening to what was said in the tribune, and then suddenly he was seen to rise, to assume his commanding attitude, and to give a turn to the most important deliberation. Disgusted with the revolutionists of the assembly, whose violence knew no bounds, he threw himself into the arms of the king; and it appears that he received considerable sums from his majesty, in reward for the services which he was to render*.

The public had no sooner heard of *Mirabeau's* death, than uneasiness was every where diffused; multitudes surrounded his house;

* The Author tells us, in another place, that the terms which *Mirabeau* made with the Court were highly favorable to the people; and that he would serve the king on no other condition, than that of his majesty consenting to support a free government.

alarm sat on every countenance; it seemed as if France had just lost the only man who could save the country: it might be said that his death was to him a genuine triumph, for he bore with him the regret of all parties; and it is remarkable that those, whose power he had destroyed, most deeply lamented his loss. The whole assembly attended his truly magnificent obsequies, and unanimously decreed to him that sort of apotheosis which lay within its power. I was witness to this deliberation; which the *right side** supported with at least as much zeal as the *left*†. These honors were publicly and spontaneously bestowed; and history ought to record that *Mirabeau*, whose character was nothing less than faultless, was carried to the pantheon by priests and by infidels, by the most violent partisans of the revolution, and by the most implacable among its enemies. He died on the 2d of April 1791.

The remainder of this work is occupied by accounts of the king's flight to Varennes, of the measures to which that event gave rise, of the petition of the Jacobins, of what has been called the massacre of the *Champ de Mars*, and of the dissolution of the famous Assembly called the Constituent. When it was discussed, after the king's flight, whether process could be instituted against him, the whole assembly, except eight, voted in the negative. In this minority were *Petion*, *Buzot*, and *Robespierre*, who had violently contended for bringing the king to trial. When the assembly finally broke up, the first and the last of these three were carried on the shoulders of the multitude; the epithet *virtuous* was given to *Petion*, and that of *incorruptible* was bestowed on *Robespierre*! This popularity of his open enemies was a sad presage for the unhappy monarch. —When the constitution was presented to the king for his acceptance, he readily gave it: but when it was notified to him that the assembly was about to dissolve itself, he testified his regret that it did not continue its functions, and see its work put to the trial, in order that it might consider of such amendments as experience should point out to be necessary. The insults, however, which it had experienced from the people, and the disgust which they inspired, prevented this reasonable suggestion from having any effect. Had it been otherwise, perhaps many of the dreadful events which followed would never have disgraced the annals of mankind!

* That part of the hall in which the anti-revolutionists sat.

† That part which was occupied by the revolutionists.

ART. X. *Memoires de HENRI LOUIS LEKAIN; i. e. Memoirs of H. L. LEKAIN*, edited by his eldest Son; to which are added several unpublished Letters to and from *Voltaire*, *Garrick*, *Colardeau*, *Lebrun*, &c. 8vo. pp. 430. Paris. 1801. London, De Boffe.

THE hero of these memoirs was one of the greatest actors of the French stage, and the idol of all the French tragic writers and lovers of the drama. After having exercised his profession with the approbation of the learned, and with the unbounded applause of the public, during 30 years, he formed the design of retiring from the stage, and spending the remainder of his days at *Fontenay*, near *Vincennes*, in a small house which he called his *Chaumière* (thatched cottage); and there, in ease and tranquillity, he proposed to digest his own memoirs, and to commit to paper some reflections on his favourite art: but, says the editor, he died in 1778, at the instant when he had hoped to enjoy the fruits of his labours.

HENRY LOUIS LEKAIN was born at Paris in 1729, the same year in which the French theatre lost the celebrated actor *Baron*. His father was a goldsmith, and destined his son, after great care had been taken of his education, to the same business. At this early period of his life, he excelled in the fabrication of chirurgical instruments, and had made himself known by this species of mechanical ingenuity; when an irresistible passion for the stage instinctively called forth a talent which occasioned the total neglect of his proper trade, for the study and rehearsal of parts in tragedy. He began, as our *Garrick* did, to repeat favourite speeches in private company; and he had the good fortune to be introduced to *Voltaire*, who had then in *la Rue traversiere* (Cross Street) a little theatre, in which his pieces were tried before he ventured to give them to the public. This celebrated poet, soon discovering in LEKAIN an actor who could feel, and make others feel, the sublime beauties of tragedy, instructed him with the utmost care, finally made him relinquish every employment but that of the stage, and gave him an apartment in his own house.—The editor has inserted, from the *Mercure* of the year 1750, (when the *Abbé Raynal* was its conductor,) a list of the parts in which LEKAIN first appeared during his probation; with the prevailing opinion of his talents at that time. For example: “The public seem to have decided that this performer is intelligent, expressive, and truly pathetic; that his action is noble, and that he treads the stage with great ease. These talents, however, are balanced by defects; some, indeed, that are very striking, not to say incurable: yet, notwithstanding these, he moves, touches, and attracts;—and he is but 20 years old.”

The Chevalier *de Mouby*, soon afterward giving an account of new actors and actresses at Paris, says ; “ among the rest, LEKAIN, a goldsmith, has distinguished himself in an extraordinary manner. He performs the principal parts in tragedy with such feeling, intelligence, force, and truth, that he is universally admired.” The Chevalier mentions the pains which *Voltaire* had taken with him, and his performances in the poet's own little theatre, before persons who were capable of appreciating and patronizing talents. He speaks also of LEKAIN's natural defects, and of his endeavours to conquer them ; of “ the docility with which he listened to advice, and which was such as to silence his greatest rivals and bitterest enemies ; till, by incessant study and labour, he had corrected the faults with which he was reproached. At present, he is the delight of the tragic scene ; and there is no doubt that he will be received into the royal company of comedians, as a model of declamation and just acting. He has had a number of splendid theatrical dresses sent to him as presents by a great prince, and by three other persons of distinction.”

Nature had given to LEKAIN an unfavourable countenance, a melancholy tone of voice, and a thick and inelegant figure. It seemed, therefore, to have thrown in his way unconquerable obstacles to his attaining the distinction of a complete actor : but study and experience developed the sentiments concentrated in his heart, animated his whole person, inspired him with the most dignified attitudes, fortified his voice, and impressed in every motion a grand character of passion ; till finally, art so much befriended him, that even the greatest beauties were heard to exclaim in the boxes : “ how handsome he is ! ”—His probation, however, continued 17 months ; and notwithstanding all the applause which he had received, he seemed likely to be rejected when he went to play the part of *Orosmane*, in *Zaire*, before Louis XVth : but that prince, who had knowledge, good sense, and a natural taste which nothing could bias, was astonished that such false accounts of this actor had been brought to him ; declaring that “ *he had drawn tears from himself, who scarcely ever wept at tragedy.* ” This opinion, so publicly given, was sufficient : —he *must* be received.

The French theatre at this time possessed the addresses *Duménil*, *Gaussin*, and *Clairon*, with Messrs. *Sarrasin*, *Lanoue*, &c. ; and amid such a constellation of talents, the theatre acquired a perfection and celebrity which it cannot soon be expected again to enjoy. It completely formed LEKAIN ; who united all the perfections which he had witnessed, and of which he afterward became the guardian and the model. It is well known that he and *Mademoiselle Clairon* first quitted the ridiculous old stage dresses,

dresses, assumed habits of *costume*, and established this improvement on the theatre.

Thus far we have extracted from our hero's eloge in the *Mercur*, Mar. 1778. The first piece in these memoirs, which is written by LEKAIN himself, is intitled '*Particular Facts relative to my first connection with M. de Voltaire.*' Here we have an account of all the little private theatres in Paris, in 1748, at the time of the rejoicings for the peace; of one of which (at the *Hotel de Jabac*) he himself was the founder: but of all these young *spouters*, though some of them entered into provincial companies, he was the only one who established himself at Paris.—He relates that his acquaintance with his patron, *Voltaire*, had its beginning at one of these little theatres, or rather *spouting clubs*, which the poet had honoured with his presence; and who, being somewhat pleased with the manner in which he had performed the part of a *lover* in the comedy of the night, made inquiries respecting him of the author of the piece, and desired to see him and have some conversation with him at his own house. The young *Roscus* then describes his reception, and the respect and enthusiasm with which he approached this great man;—'whose eyes flashed fire, wit, and imagination.'

'While I was trying to make him a speech, without being able to give it utterance, *M. de V.* put an end to my embarrassment, by throwing his paternal arms round my neck, and *thanking God for having created a being who had moved and affected him, by repeating bed verses.*—He asked me a great number of questions concerning my parents, profession, education, and future prospects. After I had satisfied him in these particulars, and taken part of a dozen cups of chocolate and coffee, (which formed the poet's sole nourishment from five in the morning till three in the afternoon,) I answered him with great firmness and intrepidity, that I knew of no happiness equal to that of acting plays; that a cruel and afflicting calamity had left me master of my actions; and that, being in possession of a small patrimony of 750 livres a year, (about 30 guineas) I had hopes that, if I gave up trade and the business of my father, I should not lose by the exchange, provided that, at some future period, I should be admitted into the King's company of comedians.

"Ah my friend! (cried *M. de V.*) make no such resolution. Take my advice; act for your pleasure, but not as a profession: it is the first, most rare, and most difficult of talents, but it is disgraced by barbarians, and proscribed by hypocrites. France will one day entertain a proper esteem for your art: but then there will be no *Baron*, no *Lecouvreur*, no *Dangeville*! If you will relinquish your project, I will lend you 10,000 francs to set you up; and you shall pay me when you can. Go, my friend, and return at the end of the week; reflect well on my proposal, and give me a positive answer."

‘Astonished, confused, and moved even to tears, by the kindness and generous offer of this great man, whom they called a miser, unfeeling and pitiless; my heart overflowed with gratitude. I was beginning to make speeches, without being able to pronounce a word, and was retiring, much dissatisfied with my inability to express my sensations, when he called me back, and desired me to repeat some fragments of speeches in the parts which I had studied. Without reflection, I offered to give a speech in *Gustavus*.——“No *Piron*! (he cried out in a thundering and terrible voice;) I hate bad verses—repeat to me all that you can remember of *Racine*.”——Luckily, when at school, at the Mazarin college, I had gotten all the tragedy of *Athalie* by heart, after having heard it read many times to the scholars who were to act in it. I therefore began the first scene, repeating, alternately, the parts of *Abner* and *Joab*: but I had not quite performed my task, when M. de V. exclaimed, in a fit of enthusiasm, “Good God! what admirable verses! And what is very astonishing, the whole drama is written with the same fire, the same purity, from the first line to the last; the whole tragedy is admirable!——Adieu, my child, (added he, embracing me,) I will venture to predict that you will have a voice which will penetrate the soul, and that you will be the chief delight of Paris: but, for heaven’s sake, do not mount any public stage.”

‘Such was our first interview; the second was still more to my satisfaction, because, at my earnest intreaties, he consented that I should pursue my dramatic studies, took me into his house, gave me my board and a good apartment, and built a small theatre at the top of his mansion, in which he allowed me to act with his nieces, and my spouting friends.’

The rest of these Particulars consist of anecdotes full of the highest praises of *Voltaire’s* generosity and disinterestedness. These encomiums, whether deserved or exaggerated, at least manifest the goodness of LEKAIN’s heart, and are honourable to his memory: but the pleasure of the Poet and that of the Actor was reciprocal. The former found in the latter a young man whose talents fulfilled his ideas of dramatic perfection; and who realized so successfully his own conception in writing, that he probably foresaw that, in future, LEKAIN would become the chief support of his tragedies. Indeed, both these celebrated men seem to have had such exalted ideas of theatrical importance, as to think that not only the honour and welfare of France, but of the whole universe, depended on its cultivation and prosperity.

Many of the papers in this volume contain narrations of theatrical squabbles and controversies long since forgotten in France, and which must be totally uninteresting in England. Instigated, doubtless, by *Voltaire*, at one time LEKAIN drew up an address to the Lords of the King’s bed-chamber, who had the

the direction of the theatres, intreating them to establish a Royal Academy for the education of young dramatic performers; as Louis XIV. had done for music, painting, and sculpture. In this memorial, great jealousy and indignation are expressed on account of the increasing favour of the Comic-Opera at this time, (1756.) We find also another memoir for the removal of the Benches which were allowed for select parties on the stage, to the utter destruction of all illusion by scenes, machinery, and stage effect. This point was carried.—Perhaps the best letter in the volume is the answer written by LEKAIN, in the name of the whole company, on the occasion of a great nephew of *le grand Corneille*, in indigent circumstances, having solicited a benefit at the French theatre. The request is here granted in the most polite and benevolent manner.

Critiques on plays, or casting of parts, and on the manner of acting them, next occur: but, at this distance of time, these observations can very little interest the admirers of the drama in France, and still less those of other countries.

The *Deliberation* in 1773 on a plan for establishing a secular *Commemoration of Moliere*, and for erecting a statue to his honour, is the most and nearly sole generally interesting scheme which we find among the detached pieces of this work. The rest may be termed local as well as temporary. The plan, however, was not supported like our Commemoration of Handel, in 1784; and the benefit play in France produced only 3600 livres, little more than 150*l.* sterling.

Voltaire's partiality to LEKAIN, and the actor's reverence for the poet, continued to the end of their lives. *M. de V.* commences a letter to him in 1762, thus: "*Monsieur le Garrick de France*—but you are Garrick only in merit, not in purse"—&c. In 1763, he begins, in the same manner, an answer to a request from the whole troop at the French theatre, to supply them with a new tragedy. After having expressed his sense of their regard, and how much he is obliged by their attention, he says: "but you must not imagine that, in writing tragedies of five acts in Alexandrine verse, the ice of mount Jura communicates much inspiration. An old man may write tales about *Mother Goose*: but tragedies demand the fire of youth; and, unluckily, I have none but what is in my chimney."—The next letter begins—"My great actor," &c. Here he complains of an erroneous passage in a new edition of *Adelaide*, which is neither French in the construction, nor intelligible in the sense. "I have written (he says) many bad verses in my time, but, thank God! I have not to reproach myself with these."

• In 1770, he thus commences a letter:—"My very great and very dear support of expiring tragedy, it was said in the

King's

King's apartments that you were dead : but, thank God, I find that you are still living. — Truth is seldom heard in a royal residence." — A subsequent letter gives a character of *Madame du Deffant*, the great friend of the late Lord Orford. — In 1776, he speaks of a *petite apoplexie*, which had deranged him, body and soul : but, afterward, he says ; " I have worked night and day at a new tragedy, notwithstanding my bad health."

Most of the poet's letters turn wholly on the subject of corrections and changes in his latter plays, which, as their success was not brilliant, have been little read ; and therefore this correspondence will not be very amusing. Now and then, however, a happy expression escapes from the old bard, who could not suppress his propensity to wit, even were he so inclined. — This literary intercourse between *Voltaire* and *LEKAIN* continued till the year of both their deaths, 1778.

Prince Henry of Prussia began a correspondence with the Tragedian in 1769. One of the Prince's letters, dated Berlin 1771, was sent by *Salomon*, for whom it bespeaks a regard which is very honourable to the talents of that excellent performer :

" Sir,

The bearer of this note, Mr. *Salomon*, my first Violin, intending to pass some time in Paris, I am very glad to procure for him the acquaintance of a man of such distinguished talents as you possess. He will tell you how much I constantly interest myself in your prosperity, and in all that can contribute to it ; being, with the most perfect esteem,

Your very affectionate

HENRY."

By another epistle from this Prince, dated in 1775, it appears that *LEKAIN* had formed the design of going to Berlin ; and the Prince names the plays in which it was wished that he would appear at Potsdam and Rheinsberg : but in the next we find that this tour was frustrated by various adverse circumstances, in that year. From another, however, in 1777, we learn that it had been accomplished, from the Prince's encomiums on, and admiration of, his talents ; and from his expressions of the pleasure which, he says, he had received from them at Rheinsberg.

The letters of our admirable countryman Garrick, to his brother Rescius, are only friendly and civil ; indeed, there was neither opportunity nor occasion for him to manifest that wit, humour, and ingenuity of thought, in a foreign language, which he could not restrain in his own. In 1765, it appears that *LEKAIN* came to England, in hopes of seeing Garrick on the stage in some of his capital parts : but unluckily he was

gone to Bath for his health, and we believe that they did not meet.

Several letters from M. *la Harpe*, written while he was on a visit at Ferney, exhibit his usual spirit. One from Mademoiselle *Clairon*, on theatrical cabals, also occurs; and another from Ferney in 1765, where she acted, on *Voltaire's* stage, the principal female parts in all his best plays.

LEKAIN himself (p. 326.) gives a very modest and interesting account of his own reception at Ferney in 1756; and of the poet's rage on his mistaking the part of *Gengiskin* in the Orphan of China. We should have inserted this narrative, if our pages would have admitted it at present.

The *Remonstrances* from LEKAIN to Monsieur *de Sartine*, to the Duke *de Richelieu*, and to the Duke *de Duras*, on the subject of his imprisonment, and that of the whole company of the King's comedians, in *Fort l'Evêque*, are expressed with firmness, and are curious as coming from an actor during the old monarchy. This tragic hero, indeed, was by nature an intrepid and steady character, free from frivolity and caprice; by art and study he had acquired dignity; and he had, perhaps, imbibed also some ideas of self-importance, from the characters which he had so often represented. He never totally quitted the truncheon or the diadem, any more than his tragic partner, Mademoiselle *Clairon*, laid aside her regal state. Neither of them had that flexibility of character which was possessed by Mr. Garrick; who could set the Green-room in a roar of laughter, between the acts of his deepest tragic parts. Neither does LEKAIN seem to have been gifted with any original ideas in drawing up his addresses delivered to the audience, at the opening and close of the theatre; which are so extremely humble, and so full of compliment and adulation, that they would have been deemed fulsome by an English audience. "The *Théâtre Française* (he says) constitutes their chief national glory in the eyes of other people, as it is become the theatre of Europe, and of the universe."—

Various other letters addressed by several personages to the hero of these memoirs, and his answers, are inserted: but we have not room to particularize them; nor do they call for especial notice.

On the whole, we have been somewhat disappointed in perusing the present volume. We found materials towards a life of this celebrated actor, but no regular series of incidents, nor even of professional transactions. It includes original discourses, and occasional writings, by LEKAIN and by others: but they are detached, and unconnected either by notes or by remarks on their failure or success. The pieces written by
himself

himself discover the man of sound understanding and probity of heart, but they display no genius beyond that of being the skilful interpreter of the beautiful thoughts of others. They manifest good sense, but it is unadorned with wit, humour, or eloquence. Many of his pieces, indeed, might have been omitted without any great loss to the reader. We expected, also, some anecdotes concerning Garrick during his residence at Paris, of which many were in circulation long after that period; but M. LEKAIN gives us no information beyond the concerns of the *French theatre, and its cabals*.

ART. XI. *Du Calcul des Dérivations, &c.; i. e. The Calculus of Derivations.* By L. F. A. ARBOGAST, of the National Institute of France; Professor of Mathematics at Strasburgh. 4to. pp. 420. Strasburgh. 18op. Imported by De Boffe, London. Price 1l. 1s. Boards.

IN matters of taste, one excellent performance does not cause its predecessors to be less read; but in abstract science and natural philosophy, it is a great merit in a treatise to supersede those which were prior to it; and the history of mathematics records in terms of praise the names of many, whose works now repose quietly in libraries, or are disturbed only for the gratification of curiosity; to mark the progress of the human mind, or to view in their infancy the germs of theories now matured. When treating on pure science, compendium and conciseness are principally to be attempted: but some, even among those whom the world reputes learned and ingenious, exclaim against these qualities; because certain authors have arrogated to themselves the merit of conciseness, for having cut away necessary steps of demonstrations, rather than removed what was redundant and obstructive. For the purpose of investigation, the shortest road is the best; and it is a puerile perversion of terms to call that a bye path which is the most direct road, and on which men may travel, securely and expeditiously, to the object of research. In our opinion, also, it cannot be truly said that the habitude of just reasoning, and of intellectual strength and activity, are the necessary results of extensive inquiry; for, in the excessive toil of the head, confused notions readily find reception, and we suffer mere words to pass current, when we are too much fatigued to examine their real weight and worth.

Among other qualities, the present work of M. ARBOGAST possesses those of conciseness and compendium: it teaches to derive by natural, direct, and easy methods, many formulæ and theorems heretofore obtained by artifice, circuitously and intricately; and it merits in some degree the commendation bestowed

bestowed by Lord Bacon on a good book, since it is like the serpent of Moses, which devoured the serpents of the enchanters. We shall endeavour to do justice to the author by giving the plan and a brief analysis of his treatise.

The method of calculation here employed depends on a general manner of considering quantities deriving themselves one from the other: hence the title, *Calculus of Derivations*.

‘To form an idea (says the author) of these derivations, it is to be observed that quantities or functions, which are deduced the one from the other, by an uniform process of operations, are derived quantities; such are the successive differentials. This idea may be extended, by considering quantities that are derived one from another, not in themselves, but solely in the operations which collect and bind them together; the quantities themselves being any whatsoever, arbitrary and independant. Thus, on the supposition that, out of many different letters, the first enters solely into a function, while the two next enter into the derivative of that function; that the first three, by the same law, enter into the derivative of the derivative, and so on; we shall have the derivatives in the extended sense which I have given to them. In my theory, the quantities designated by different letters are not derived one from another; and the derivatives which I consider are less the derivatives of quantities than of operations; as algebra is less a calculus of quantities than of operations, arithmetical or geometrical, to be performed on quantities. Derivation is the operation by which a derivative is deduced from that which precedes it, or from the function. The method of derivations, in general, consists in seizing the law that connects together the parcels of any quantities whatever; and in making use of this law as a method of calculation for passing from derivative to derivative.’—

‘In order to form the algorithm of derivations, it has been necessary to introduce new signs. I have given particular attention to this object, persuaded that the secret of the power of algebra consists in the choice and happy use of signs, that are at once simple and characteristic of the theory which they are intended to signify; and on this account I have prescribed to myself the following rules: 1st, To render the notations as much as possible analogous to the notations in use. 2dly, Not to introduce unnecessary notations, which, without confusion, might be replaced by the ordinary notations. 3dly, To choose those which are most simple, at the same time introducing into them all the varieties which the different operations require.’

The symbol d is consecrated by *Leibnitz* to denote the operation for obtaining the differential of a quantity; thus, $d(x^m) = m x^{m-1} dx$ $d(ax) = ax$. To denote the operation for obtaining the derivative of a quantity, M. ARBOGAST employs the symbol D ; thus, $D(x^m) = mx^{m-1}$, $D(ax) = ax$; and the development of a function, $F(a+x)$, is therefore thus expressed;

$$F\alpha + \frac{DF\alpha}{1}x + \frac{D^2F\alpha}{1.2}x^2 +, \&c.$$

which, according to the notation in the differential calculus, is

$$F\alpha + \frac{dF\alpha}{d\alpha}x + \frac{d^2F\alpha}{1.2.d\alpha^2}x^2 +, \&c.$$

To avoid writing the factors, 1. 2. 3. &c. in the denominators,

let D_c^n generally represent $\frac{D^n}{1.2.3.-n}$; then,

$F(\alpha + x) = F\alpha + DF\alpha.x + D_c^2F\alpha.x^2 + D_c^3F\alpha.x^3 +, \&c.$
 This is the known form for the developement of the function of a binomial; and the object of the primary articles of the present treatise is to find a form for the developement of the function of a polynomial; viz. $\alpha + \beta x + \gamma x^2 + \delta x^3 +, \&c.$
 The method of obtaining it may be thus briefly explained:—
 When α is variable, and $D\alpha = \beta$, write $D.\phi\alpha$ for the derivative: when α is variable, and $D\alpha = 1$, write $D\phi\alpha$ for the derivative: therefore,

$$\phi F(\alpha + \beta x) = \phi(F\alpha + D.F\alpha.x + D_c^2.F\alpha.x^2 +, \&c.):$$

$$\text{but } \phi F(\alpha + \beta x) = \phi F\alpha + D.\phi F\alpha.x + D_c^2.\phi F\alpha.x^2 +, \&c.$$

$$\text{put } F\alpha = a, DF\alpha = D.a, \&c. \text{ and } \phi(a + D.a.x + D_c^2.a.x^2 +, \&c.) = \phi a + D.\phi a.x + D_c^2.\phi a.x^2, \&c.$$

Now, to determine $D.\phi a$, $D^2.\phi a$ &c. we have

$$D.\phi a = D\phi a. D.a$$

$$D^2.\phi a. = D.(D.\phi a) = D(D\phi a. D.a) = D\phi a. D^2.a + D^2.\phi a.(D.a)^2, \text{ and so on.}$$

To find $\phi(\alpha + \beta x + \gamma x^2 +, \&c.)$, put it $= \phi x + D.\phi a.x + D_c^2.\phi a.x^2 +, \&c.$; develope $D.\phi a$, $D^2.\phi a$, &c.; and after developement put $D_c.a = \beta$, $D_c^2.a = \gamma$, $D_c^3.a = \delta$, &c.
 Hence it appears that $\phi(\alpha + \beta x + \gamma x^2 +, \&c.)$ may be converted into a series of the form $A + Bx + Cx^2 + Dx^3 +, \&c.$; and the first term A will $= \phi a$.

The coefficient of the second term will $= D.\phi a$, or $D.A$.

The coefficient of the third term will $= D^2.\phi a$, or $D^2.A$.

The coefficient of the $n+1$ will $= D^n.\phi a$, or $D^n.A$.

provided that, after the derivations have been made, we put in the results β for $D.a$, γ for $D_c^2.a$, &c. B for $D.A$. C for $D_c^2.A$, &c.

The coefficient of x^n or A_n in the series $A + Bx +, \&c.$ equals $D_c^n.\phi a$, which is $= D\phi a. D_c^{n-1}.\beta + D^2.\phi a. D_c^{n-2}.\beta^2 + \&c.$ — $D_c^n.\phi a.\beta^n$

The method of proof is this:—

$$\text{put } \pi = \beta + \gamma x + \delta x^2 +, \&c.$$

$$\text{then } \phi(\alpha + \beta x + \gamma x^2 + \&c.) = \phi(\alpha + \pi x)$$

$$= \phi a + D\phi a.\pi x + D_c^2\phi a.\pi^2 x^2 +, \&c. \quad (1)$$

but

but π , π^2 , π^3 — π_n are functions of the polynomial;
 $\alpha + \beta x + \gamma x^2$, &c.

\therefore generally $\pi^n = \beta^n + D. \beta^n. x + D^2. \beta^n. x^2 +$, &c. (2)

Write, therefore, in series (1), for π , π^2 , π^3 — π_n , the values resulting from (2); collect the terms affected with the same power of x ; and it will easily appear that the coefficient of x_n , or A_n , is such as we have stated it to be.

In this method is comprehended, as is evident, the form for the developement of a polynomial raised to any power; which was first given, but without satisfactory demonstration, by *De Moivre*, in the Transactions of the Royal Society, and in his *Miscellanea Analytica*, p. 87. The above form of M. ARBOGAST has many advantages; it exhibits compendiously the law of the coefficients by means of the symbol D ; and, when the operations indicated are to be actually performed, the coefficients easily result in terms of the polynomial quantities.

The formula for the function, being general, manifestly serves for the developement of expressions, such as

$\alpha + \beta x + \gamma x^2 +$, &c., $\sin. (\alpha + \beta x + \gamma x^2 +$, &c.) &c.

After having exhibited the general form for $\phi (\alpha + \beta x + \gamma x^2 +$, &c.) M. ARBOGAST shews how from one term to deduce the next succeeding, and likewise how to calculate any term whatever of the developement, independently of all the others. The length and intricacy of the calculations render it impossible for us to give details of these methods.

In the latter part of the first article, the author applies his method of derivation to assign the sum of the powers of the roots of an equation, in terms of the coefficients of the equation; and the formula which he deduces is remarkable for the simplicity of the law by which the coefficients are expressed. *Vandermonde*, (Memoirs of the Academy, 1771, p. 373), *Euler*, (Comms. Pat. 15 vol.), *La Grange*, (Memoirs of Berlin, 1768), and *Waring*, (*Meditationes Algebraicae*, p. 1.) having given general formulæ for the sum of the powers of the roots of an equation, M. ARBOGAST compares his own with the demonstration of those, and shews how they follow from it. Whoever will take the trouble of examining those several formulæ will find them not only less simply expressed than that of the present author, but less evidently and less rigorously demonstrated.

Article II. relates to the developement of functions of two or more polynomials, arranged according to the powers of the same letter.

Suppose the series $\alpha + \beta x + \gamma x^2 +$, &c. and $\alpha + \beta x + \gamma x^2 +$, &c. &c. are to be multiplied together; then the product is

$\alpha\alpha +$

$\left. \begin{matrix} aa + ab \\ + ba \end{matrix} \right\} x +$, &c. or, making $b = D. a$, $c = D.^2. a$, &c. $\beta = D. a$, $\gamma = D.^2. a$, &c.; the coefficients of the terms affected with x , x^2 , x^3 , &c. will be $(a. D. a + D. a. a)$, $(a. D.^2. a + D. a. D. a + D.^2. a. a)$, or $D(a. a)$, $D.^2. aa$, and the coefficient of the term affected with x^n will be $D.^n(a. a)$, which may easily be developed.

Hence the form for the product of any number of series, arranged according to the powers of x , may be determined. In four series, for instance, of which the first terms are a , a' , a'' , a''' , the origin of the derivations will be $aa' a'' a'''$; and the coefficient of the term affected with x^n , will be $D.^n(aa' a'' a''')$.

In the developement of the product of any two functions whatever of polynomials, (for instance, of $\phi(a + bx +$, &c.) and $\phi(a + \beta x +$, &c.), the coefficient of the term affected with x^n will be $D.^n(\phi a. \phi a)$; which, by foregoing methods, may be easily developed.—Since $\frac{1}{A}$ and A^{-1} are equivalent expres-

sions, by the foregoing methods, fractions such as $\frac{a + bx +}{x^n +}$, &c. $\frac{1}{\gamma x^2 +}$, &c. $\frac{1}{(A-x)^i}$, $\frac{1}{(A-x)^i}$, &c. may be converted into series of the form $A + Bx + Cx^2 + Dx^3 +$, &c.

After M. ARBOGAST has applied his method to such fractions, &c. as we have mentioned, he shews how to deduce the form for the developement of $\phi(a + bx + cx^2 +$, &c., $a + \beta x + \gamma x^2 +$, &c.) and assigns the form for the coefficient of the term affected with x^n . The law by which these forms are regulated is simple, and easily comprehended.

The III^d article contains the developements of functions of one or more polynomials, arranged relatively to the powers and to the products of two or more different letters, into series arranged in the same manner. With this section, the first part terminates, and its principal object reduces itself to the following general problem:

Any function whatever of one or more simple, double, or triple polynomials being given; to write immediately the series of the developement of this function; and, moreover, to write immediately the developement of any term whatever of this series, independently of the other terms.

When we use the expression "to write immediately" (says M. ARBOGAST,) it is to be understood that we already know the successive derivatives $D\phi a$, $D.^2\phi a$, &c. where a varies from 1: otherwise, it will be necessary to begin by calculating them.

We presume to think that geometricians will find our methods new, easy, and analytical; and I am of opinion that the solution of the

The complicated cases concerning any functions whatever, of several simple polynomials, and the functions of double, triple polynomials, &c. has not before been attempted.

'A crowd of applications present themselves, which embrace the principal branches of the theory of series, and simplify many researches: the practical part of the differential calculus, for instance.'

Next in order is article III. containing applications of derivations to recurring series, as well simple as double, or triple, &c. of any order whatever.

The authors who have treated of recurring series are *De Moivre*, in his *Miscellanea Analytica*, and *Doctrine of Chances*; *Euler*, in his *Introductio in Analysin Infinitorum*; *La Grange*, in *Mélanges de Turin*, in *Memoirs* presented to the Academy of Paris, and in the *Berlin Memoirs*; and *De Place*, in *Memoirs* presented to the Academy of Paris, and in the *Memoirs* of the Academy. To the subject of the researches of these great mathematicians, M. ARBOGAST applies his method of derivations; and he certainly obtains by it, in our opinion, expressions very admirable for their simplicity, and for the facility with which they can be expanded. In the methods of the authors above mentioned, in order to find the general term, the denominator of the generating fraction is resolved into its factors; which is done by finding the roots of the denominator put $= 0$; consequently, if the denominator exceeds an equation of the fourth degree, the general term cannot be found:—but, by the method of derivations, the general term is assigned in terms of the coefficients of the denominator of the generating fraction and other quantities; thus, if the generating fraction be

the expression for the general term of the resulting recurring series is $D_c^m (xa^{-1})$, or $a D_c^m a^{-1} + \beta. D_c^{m-1} a^{-1} + \gamma. D_c^{m-2} a^{-1}$, ($D_c^2. a, D_c^3. a$, &c. being $= 0$)

In the course of this article, M. ARBOGAST shews how to find at once a part of the general term of a recurring series, proceeding from several equal factors in the denominator of the generating fraction: thus, let $\frac{P}{Q}$ be the generating frac-

tion, and $N \times (a-x)^m = Q$; in $\frac{P}{N}$, put a for x , and suppose $\frac{P}{N}$ to be what this fraction becomes: then the required part

of the general term will be $D_c^{m-1} \left[\frac{P^{m-1}}{N^m} \right]$, and $D a = -1$ and $n + 1$ the index of the term.

As a last example in simple recurring series, M. ARBOGAST determines the sine and cosine of any multiple angle in cosines of the simple angle E. We cannot enter into an examination of this method, but must content ourselves with merely stating that the demonstrations for the forms expressing the sines, cosines, &c. are much more clear and rigorous than any that we have hitherto seen.

In the last part of the fourth article, the author treats of double and triple recurring series: a subject difficult and complicated, but here discussed with much ability.

Art. V. contains applications of the calculus of derivations to the general reversion of series. No part of the present treatise is more ably executed than this; and here the author chiefly insists on the advantages which, in point of simplicity and generality, his notation and methods afford him:

‘The general reversion of series, (he says,) treated by derivations, is one of the subjects on which I have been employed, with the greatest pleasure, and perhaps with the greatest success. I presume to hope that it will be found to be presented with greater generality and facility than it has hitherto been; that the very extensive theorem placed at the beginning of the article will be judged worthy of attention, together with its demonstration; and above all the method by which I have derived from it the different propositions concerning the reversion of functions and of simple series; propositions which include the most valuable theorems known on the subject. The facility with which the developements are effected by the rules of derivation is, moreover, worthy of notice.’

Art. VI. On the use of derivations in the differential calculus. In the method of derivations, the quantities α , β , γ , &c. are not necessarily dependent on each other; and hence the case, in which these quantities are dependent on each other, must be comprehended in the general case of derivations. In the differential calculus, the quantities dx , $\frac{d^2x}{1.2}$, &c. depend

on each other; and for this reason it may be considered as a particular case of the calculus of derivations. This is briefly the reasoning of M. ARBOGAST, and it is just, under certain considerations: but, nevertheless, the principal theorem in the differential calculus is necessarily antecedent to the principal theorem in the derivative calculus; and the author, in fact, uses the former to establish the latter.

In this part, the invention most worthy of notice is the method of separating the scale of operations (*methode de separation des echelles d'operations*); which affords us, says the author, the means of presenting complex formulæ under a very simple form, and of arriving with extreme facility at important results.

sults. ' Generally considered, this method consists in detaching, (when it is possible,) from the function of the variable quantities, the signs of operation affecting that function; and in treating the expression compounded of these signs and other quantities, (which expression I have called the scale of operations,) in the same manner as if the signs of operations which there enter were quantities: then, to multiply the result by the function.' By this method, M. ARBOGAST has been enabled to treat with great simplicity, clearness, and generality, that particular species of calculation, which took its rise in the analogy observed by *Leibnitz* to prevail between the positive powers and the differentials, and between the negative powers and the integrals.

To give an easy instance of the scale of separation, let d be the note of complete differentiation, d'' of differentiation relatively to y only, and d'' to x only; then the scale of differentiation is $d = d' + d''$, and $d(xy) = (d' + d''). xy = d'. (xy) + d''. (xy) = xdy + ydx$. In the second differentiation, the scale is $d^2 = (d'^2 + d'')^2$; and in the n^{th} differentiation, $d^n = (d'^n + d'')^n$; by which form, the n^{th} differential of any rect-angle is easily obtained.

The VIIth article consists of three divisions: the first containing the application of the formulæ of derivation, to the developement of the functions of polynomials containing sines, cosines, &c.: the second gives the application of the derivative calculus, to the product of factors in arithmetical progression; and the third shews the application of the separation of scales to the direct and inverse method of differences.

' Such (says M. ARBOGAST) are the subjects treated in this work: they are connected together by a general and uniform method, which invites to new applications, at the same time that it considerably abridges calculations of which the length, frequently excessive, has formed one of the chief obstacles to the progress of analysis. In causing many important theories and solutions, founded on different principles and methods, to approximate, I have been especially anxious, in order to render manifest the utility of the calculus of derivations, to attach to this calculus several of the most elegant formulæ for which the scientific world is indebted to the sagacity of those great mathematicians, *La Grange* and *La Place*. " These sorts of *rapprochemens* (says *La Grange*) are always instructive, and must conduce to the progress of analysis: it may even be said that they are necessary in its present state; for, in proportion as that science is extended and enriched by new methods, it becomes more complicated; and we can simplify it by merely generalizing and reducing together the methods which are capable of these advantages."

' If any thing inclines me to think that the object of this work is not unworthy of the attention of geometers, it is the desire expressed

pressed by one of the best English analysts, Professor Waring, for a method of which the object should be similar to that of the method of derivations; and which he designates by the name of the direct and inverse method of reduction (*methodus deductionis et reductionis*): but he merely makes mention of it, and provides no means of attaining it. With this wish he terminates his *Meditationes Analyticae*:—an important work on series, and the differential and integral calculus.

The fondness of authors for their own productions is so natural and so usual, that the world hears their claims to distinction with indulgence, and allows a certain scope and privilege to self-elation: yet vanity, though prevalent, is not therefore commendable; and, generally speaking, where there is the most native excellence, there is likewise the least presumption. A wise man, conscious of his powers and performances, asserts his claim, when necessary, with firmness, but without ostentation. Among mathematicians, the ebullitions of conceit are least to be expected, when their discipline, their severe studies, and their consequent mental habits are considered; and such is the fact:—men of research find that, when opinions are disengaged from verbal incumbrances and redundances, the number of certain truths is very small, and those are to be acquired only by long and diligent meditation. Vanity, in the author of the present volume, we could easily have excused, because he has considerable ground for such a feeling: but he speaks of his labours with singular modesty, and the expectation raised by the preface is more than satisfied by the perusal of the work itself. The nature, plan, and conduct of his publication may be in part understood from our brief and imperfect analysis; *imperfect*, we presume, chiefly from the circumstance of the author not having filled his pages with superfluous matter and redundant examples,—his design being executed simply, clearly, and systematically. Indeed, the '*Calculus of Derivations*' is an exemplar, a practical proof of what a scientific book ought to be:—it is deep, yet clear; rich without parade; great by little means; and systematic, without the tediousness of formality:—it has overcome difficulties without artifice; it has arrived at high truths by a road at once the most direct and the plainest: it has sounded vast depths, yet has not perturbed the waters; and it guides us through the labyrinths of intricate calculation, ever holding the clue of an enlightened method.

ART. XII. *Histoire Naturelle de Buffon*, &c. i. e. BUFFON'S Natural History, a new Edition. The Birds, Quadrupeds, and Fishes, edited by RENE-RICHARD CASTEL; 46 Vols. The Mineralogy by EUGENE-MELCHIOR-LOUIS PATRIN, in 5 Vols. With Plates. Small 12mo. Paris. 1801. Imported by De Boffe, London.

ALTHOUGH the original work of BUFFON is universally allowed to be amusing, elegant, and instructive, yet its want of order in the arrangement sometimes excites emotions of disgust in the minds of its scientific readers. The editor of the present publication has therefore corrected this defect, by adopting the Linnæan system. He has also much abridged the theories; and he has omitted most of the notes, together with the whole of the former parts relating to anatomy and mineralogy. The first three volumes before us contain the essential parts of the theory of the earth, and of those dissertations which treat of the epochs of nature, and of natural history in general;—the Quadrupeds are described in the seven following volumes;—and the next sixteen are filled with the history of the Birds. The plan of arrangement here adopted is certainly a great improvement; since the whole is thus formed into a regular and connected series. Moreover, as it has evidently been the intent of the editor to make a popular edition of BUFFON, we think that certain parts of the original have very properly been suppressed. We wish, however, that the synonyma of the different animals had been retained.—The ten succeeding volumes, containing the natural history of fishes, constitute a neat and cheap impression of the splendid and expensive work in folio, published by Bloch; to which the history of the larger marine animals has been added. They form either a continuation of M. CASTEL's edition of BUFFON, or may be considered as a separate production.

The Natural History of Minerals, in 5 vols. by M. PATRIN, is also to be regarded both as a distinct production, and as a part of M. CASTEL's publication; supplying the place of the mineralogical portion of M. BUFFON's work, which has here been very judiciously rejected.—Our notice of the preceding volumes has been concise, because they are merely new editions of former books: but this mineralogical part being new and original; and the performance of a respectable naturalist, it has a claim to more particular attention.

The name of M. PATRIN has been long familiar to us; and we recollect some papers published by him in the *Journal de Physique*. He travelled during eight years in the northern parts of Asia, examined the nature and products of the Siberian

mines, and collected many curious facts, some of which are to be found in the work before us: of which we shall now present to our readers a general sketch, and afterward take notice of a few of the most interesting particulars.

1. After the introduction, and a concise vocabulary of mineralogy, the author distributes his materials in the following manner: 1. The simple or primitive earths; viz. Sillex, Alumine, Lime, Magnesia, Barytes, Strontites, Zircon, and Glucine. 2. The principal ingredients of primitive rocks; namely Quartz, Feldt Spar, Mica, and Schorl. 3. The primitive rocks; comprehending Granite, Gneiss, the lamellated Rocks, Porphyries, Trapp, &c. 4. The crystallized Stones, which are more or less found in the primitive Rocks, especially the precious Stones. 5. The siliceous Substances which are not crystallizable; such as the Flints, Chalcedonies, Agates, Jaspers, &c. 6. Substances which form the secondary Strata, as the common Lime Stones, Marbles, Chalk, Marle, and Clays. 7. Substances which compose the tertiary Strata, as, Pudding-stones, Sands, and Grits formed by the agglutination of particles or fragments. 8. The Metals, amounting to twenty-one in number, and arranged according to the inverse order of their ductility, and their affinity with Oxygen. 9. Volcanoes, with a new theory of their formation and phenomena. 10. Volcanic Substances, such as Lava, Pumice, and (according to M. PATRIN) Basaltes. 11. Pit Coal, Bitumen, and Sulphur. 12. Rock Salt. 13. The extraneous Fossils.

With respect to the last, the author remarks that the primitive strata never contain any vestiges of them; that the more antient secondary calcareous strata contain only a few scattered shells, but that these are found in a much larger quantity with Zoophytes in strata of a later formation; that the most recent of these strata exhibit impressions of fishes, and some remains of oviparous quadrupeds; that the bones of land animals, according to M. *De Luc*, are not found in stony strata, but only in loose beds of earth; that the fossil vegetables, which appear to be most antient, are the ferns and reeds found in the schistus which accompanies coal; and, lastly; that large vegetables, such as trees, are commonly discovered in heaps of sand or gravel, and are then frequently in a siliceous state.

Speaking of Magnesia, (vol. 1. p. 18.) M. PATRIN says,

‘ Every year, all the deserts of Siberia are covered with an efflorescence of Epsom Salt (Sulphate of Magnesia); and during the short but violent heats which these regions experience, this efflorescence is at times so abundant as to resemble snow. The annual rains and thaws convey this magnesian salt into the brooks and rivers: but still a new efflorescence, equally abundant with the former, appears again

again at the proper season. The soil does not furnish this prodigious quantity of magnesia, for it is argillaceous and quartzose, mixed with a small portion of calcareous earth: but, if even it had contained magnesia, it would certainly have been completely deprived of it, by the repeated lixiviations which its surface has undergone for so many ages.—It seems to me probable that this magnesia is in reality completely formed, in the same manner as the muriate of soda and other saline substances, of which these deserts are an inexhaustible laboratory.

In vol. 2. p. 24. we have an account of the Siberian Crysolites, Emeralds, and Aqua-Marines, together with a description of the mountain in which they are found. At p. 158. he takes notice of the rare and beautiful Saphirine Chalcedony of Siberia, and makes the following curious remark:

‘Those which have this blue tint, to a certain degree of intensity, are extremely rare, and produce a *chatoyant* reflection which renders them precious. This effect, and the blue colour, are owing to a simple modification of the elementary parts of the chalcedony; for it acquires these properties only by long exposure on the surface of the soil. In the great number which I caused to be dug out of the interior of the lava, I never found one which had this blue colour.’—

‘All the chalcedonies, which I discovered scattered on the surface of the soil, were more or less bluish in the upper part, but were without colour on the side which touched the earth.’

Concerning the Opal found in Hungary, the author says that, ‘wherever they dig, the matrix of the Opal is so penetrated with moisture, that the stones themselves are almost without consistency, and break between the fingers. It is only after several days, and after having been exposed to the sun, that they acquire all the hardness of which they are susceptible, and exhibit completely the brilliancy of their colours.’

M. PATRIN also observes that the most beautiful Jaspers, found in Siberia, are on the surface of the mountains; and he is of opinion that they have been formed from petro-silex by long exposure to air, light, and weather.

In his account of the mercurial Ores, (vol. 4. p. 321.) the author mentions the following singular fact: ‘The mines of Mersersfeld, near Creutznach, afford a remarkable phenomenon: Cellini says that petrified mercurial fish are there found; they are entirely covered with spots of cinnabar; and the stone which encloses them is a black slate, from which they may be easily separated: but they are very brittle, and not thicker than paper.’

In the above volume, as well as in vol. 5, we find some very peculiar ideas concerning the formation of metals; several of which savour strongly of alchemy.—Our readers may see some

examples in pp. 24. 161. and 342. of vol. 4. and pp. 26. 55. and 186. of vol. 5.—We must also refer to this last volume for the author's theory of volcanoes.

M. PATRIN considers the English Fuller's earth as a marble (vol. 1. p. 8. and vol. 3. p. 272.): but in this opinion he has certainly fallen into a great error; and we are surprized to see the Titanite (vol. 2. p. 84.) arranged with the earthy and stony substances.

The accounts of the various mines in different parts of the world (vol. 4. pp. 233. and 271, &c. &c.) appear to contain much useful information; and although, in several parts, the author soars rather too high on the pinions of fancy, and has been hurried away by the warmth of his imagination, yet every judicious and candid reader must allow that this is not the production of a common compiler;—nor even of a chamber mineralogist, since it evidently bears the stamp of originality, and of being the work of a man who has studied this branch of natural history on a grand scale.

ART. XIII. M. MEUSEL'S *Guide to the History of Literature*.

[Article continued from Appendix to M. R. Vol. 34.]

THE FIFTH SECTION, OR PERIOD, of this History commences with the *Crusades*, and ends with the *Reformation*; comprehending about 400 years.

General State of Letters.—Many circumstances concurred, during this period, to repel barbarism, and to recall a better taste. The Crusades, with Asiatic luxury, had also brought into Europe many useful arts and sciences; with a general taste for chivalry, which polished down the rough warrior, and made him the friend and protector of learning as well as of beauty. The institution of universities, in the 12th century, contributed not a little to the advancement of knowledge; and after the conquest of Constantinople by the Turks in 1453, a number of learned Greeks came into the west, who disseminated taste and classic lore over all Europe. The invention of cotton and linen paper, and that of the more glorious art of printing, the rapid progress of free-thinking and free-writing which hence resulted, the discovery of America, and the institution of posts for carrying letters, &c. all contributed to the diffusion of learning, and prepared the way for that sunshine of science which succeeded this period.

The principal Promoters of Learning were, in Italy, the Viscontis of Milan, the Carraras in Padua, but chiefly the Medici of Florence, and the Popes Gregory ix. and x. Nicholas v. and Pius

Pius II:—in Spain, Alphonsus of Castile and Alphonsus of Arragon:—in Portugal, Dionysius:—in France, Lewis VII. Philip II. and Charles V. and VII.—in Germany, the Emperors of the House of Swabia, particularly Frederic II:—in England, Edward III. and Henry VII:—in Denmark, Christian I:—in Poland, Casimir III:—in Hungary, Matthias Corvinus.

Persons by whose influence Learning was chiefly benefited.—According to M. MEUSEL, these were Peter Abelard, Robert Grossetête, Albert the Great, Matthew Paris, Roger Bacon, Petrarch, Raymund Lully, Æneas Sylvius, or Pius 2d, and the Abbot Tritenheim, commonly called Trithemius.

Schools and seminaries of Learning.—The schools of this period were of two sorts; particular, called *studia*; and general, called *studia generalia*, or *universities*. Both differed from those of former times. They were endowed with privileges by popes, and by secular princes. The first great privileged schools, in Italy, were those of Salerno and Bologna, the Archigymnasium of Rome, and the universities of Padua, Perugia, Siena, Ferrara, Cremona, and Florence;—in Sicily, Catania;—in Spain and Portugal, Salamanca, Valentia, Siguenza, Toledo, Coimbra, Ferreira, and Lisbon;—in France, Paris, Toulouse, Montpellier, Avignon, Orleans, Grenoble, Perpignan, Angers, Caen, Poitiers, Bourdeaux, and Bourges;—in Germany, Heidelberg, Prague, Vienna, Erfurt, Wirtzburg, Leipsig, Ingolstadt, Rostock, Triers, Freyburg, Tubingen, Mentz;—in Switzerland, Basil;—in the Netherlands, Louvain;—in Great Britain, Oxford, Cambridge, St. Andrew's, Glasgow, and Old Aberdeen;—in Denmark, Copenhagen;—in Sweden, Upsal;—in Poland, Cracow.—The dates of the erection of these universities are given by the author, but some of them are uncertain.—The principal schools of the Jews during this period were, in Spain, at Seville, Granada, Cordua, and Toledo.—The Orientalists had colleges at Bagdad, Damascus, Kupha, Bassora, and Boghara. In Africa, were schools at Morocco, Fez; and Tunis.

Libraries.—Before the invention of printing, great collections of books were rare. The libraries of the Arabian nations consisted chiefly of translations from Greek authors. That of Abumanzar Baharam at Firuzabad contained 7000 volumes.—In the 12th century, Spain possessed not fewer than 70 open libraries belonging to the Moors; the principal of which, at Cordua, is said to have contained 250,000 volumes. The libraries of Constantinople were almost annihilated by the ravages of the Crusaders, and the devastations of the Turks: but many of the books, which escaped, enriched the collections of Italy; where Bologna was the great book-market. In general, the cloisters

cloisters were the chief repositories of writings, because the monks had more inclination and leisure for copying than any other class of mankind. It does not appear that, early in this period, there were any open public libraries, even in Italy. In 1450, the foundation of that of the Vatican at Rome was laid; and about the same period of time the Ducal library at Florence, St. Mark's at Venice, St. Paul's in the cathedral at London, and that of Trinity College, Cambridge.

State of Philology.—The Jewish philologists of this period were Aben-Ezra, Salomon Ben-Isaac Rashi, Moses Maimonides, and the three Kimchis. The first edition of the Hebrew scriptures was printed at Ferrara in 1476. The author here remarks that Pope Clement v. in the council of Vienna 1311, decreed that the Hebrew, Arabic, and Chaldee, should be taught in all the higher schools: but this decree was little observed.

Among the Greeks, philology flourished principally in the 12th century, under the auspices of the Comnenas. The most remarkable learned men among them were Tzetzes, Eustathius, Emmanuel Chrysoloras, Moschopulus, Bessarion, Theodore Gaza, and Lascaris; whose Greek Grammar, first printed at Milan in 1476, has been the foundation of all others since published. By him and other Greeks from Constantinople, a classical taste was gradually diffused from Italy over the rest of Europe. The fourteenth and fifteenth centuries produced a Petrarch, a Papias, a De Janua, a Malpaghino, an Angelii, a Barzizius, a Guarinus, a Manetti, a Valla, a Bracciolini, commonly called Poggius, a Perottus, a Philelphus, an Hermolus Barbaras, a Politian, a Marcilius Ficinus, and some others of less celebrity. During this time, the Italian language was highly cultivated and embellished; and many of the Greek and Latin classics were translated into it. The Provençal, or Romonza, was cultivated chiefly in the southern provinces of France; whence it soon spread into the other provinces, and into the neighbouring regions of Catalonia, Valentia, Murcia, Majorca, Minorca, and Sardinia.

France produced not many eminent philologists during this period, M. MEUSEL mentions only Abelard, Alexander de Ville Dieu, and De Lyra.—A similar deficiency prevailed in Germany. Rolof Hausmann, or Agricola, was the first, according to Melancthon, *qui in Germania emendavit genus sermonis et dialecticam*. Three others are mentioned by the present author; viz. Heggius, Liber, and Dringenberg.—In England we find Roger Bacon, Richard Aungervyle, and Michael Scot.

State of Historical Knowledge.—In this walk, the Arabs (according to M. MEUSEL) were the foremost. Bohaddin Ibn-Scheddad, Abulfeda, Bar-Hebræus, Ibn-Alamid or Elmakin, and

and two or three others, are here particularly noticed.—The following were Persian historians: Abu-Said, Turan Schah, Sheriffeddin, and Mirkhond.—In Greece, we have the authors in the Byzantine collection, Anna Comnena, William of Tyre, (although he wrote in Latin,) and Gemistius.—The historians of Italy were Gottfredo di Viterbo, Petro de Vincis, Albertino Mussaco, Ludovico Bavarico, Petrarch, Leonardo Bruni, Flavio Biondo, Æneas Sylvius, Benedict Acolti, Antonio Beccatelli, Bartoli Sacchi, commonly called Platina, Bernardi Justiniani, and Julius Pomponius Lætus.—The Spanish historians were Roderigo Ximenes, Juan Nunoz de Villasan, Roderigo de Zamora, and Ferdinando de Pulgar.—In France, we find the names only of Joinville and Froissard.—German historians were, Cosmos of Prague, Otto, Helmold, Arnold von Lübeck, Conrad von Lichtenau, Albrecht, Martinus Polonus, Jakob von Königshosen, and Gobelinus Persona.—Of the many English historians, M. MEUSEL mentions as the most renowned, William of Malmsbury, Matthew Paris, and Nicholas Trivet.—The father of Russian history was Nestor, a monk who lived in the beginning of the 12th century. His annals, written in Russian, were continued by Abbot Sylvester and Simeon bishop of Susdal. They were printed at Petersburg in 1767.—Aras, or Aré Frodi, wrote, about the year 1148, annals in Islandic, published by Bussæus in 1733. Snorro Sturläson, who died in 1241, was a celebrated historian, statesman, and warrior; he wrote, in Islandic, a history of the Northern Kings, which was published in 2 vols. folio by Peringskiöld in 1697, and by Thorlac and Thorkelin in 1782.—The first good historians of Denmark were Sweno Aageson and Saxo Grammaticus.—The first history of Poland was written by Vincent Kadlubek bishop of Cracow in 1226. It was published by Martino Gallo, in folio, 1749.—A priest named Henry of Lettland wrote a good history of Livonia, from the year 1184 to 1216, called *Origines Livonie sacra et civilis*; published by J. D. Gruber, at Leipzig in 1740.

The principal geographers of this period were Edresi, a learned Mohammedan of Cordua; the best edition of whose work was published by Hartmann at Göttingen, in 1796:—Abdollarif Ibn-Jusuph of Bagdad, whose *Compendium*, &c. was published by Dr. White in Arabic, with a preface by Paulus, in 1789, and translated into German by Wahl in 1790:—Abulfeda, whose works have been at different times, and in parts, edited by Reiske, Grævius, Koehler, Michaelis, and Eichhorn:—Benjamin of Tudela, a travelling Jew, whose itinerary was first published by L'Empereur, 1633: it has been translated into French by Barratier, and into English by Gewana.—Here
the

the author just notices *Girold's Topography of Ireland*, and *Dooms-day Book*.

State of Mathematical Science.—The principal mathematicians, or rather astrologers, among the Arabic writers, were Alpharagius of Morocco—Abul Walid Ebn Roshd, commonly called Averroes, who was at the same time theologian, lawyer, physician, and philosopher—Aben Ragel and Alkabiz, both of Toledo—Nasiredolin, and Ulugh-Beigh, uncle to Tamerlane.—From the Arabs, the western world drew its first lessons of mathematics; and from their language, Campanus, in 1150, translated Euclid's Elements.—The Emperor Frederick II. who was himself a mechanist, astronomer, and astrologer, caused the *Almagest* of Ptolemy to be translated, in 1230.—Alphonsus 10th king of Castile brought astronomy into great repute, by patronizing equally the Arabic, Jewish, and Christian writers on that subject.—Other mathematicians, mentioned by the author, are Albertus Magnus, Roger Bacon, Petrus Aponensis, Franciscus Cecco, and Paulus Toscanellus.—The mariner's compass was discovered about the beginning of the 14th century, but by whom is uncertain. M. MEUSEL thinks that we owe it to the Arabs.—Peter D'Ailly and Nicolaus Cusanus attempted to correct the calendar; and the latter laboured to find the quadrature of the circle:—but Regiomontanus, and Miller, (also surnamed Regiomontanus,) were the principal mathematicians of that age.—Regiomontanus's scholar, Bernard Walther, was likewise reckoned one of the best astronomers of his day. His work was printed at Nurnberg in 1544.—Military tactics underwent a considerable change during this period, from the invention of gun-powder, muskets, cannons, bombs, &c. These last were invented by Siegmund Pandulph Malatesta, of Rimini, about the middle of the 15th century.

State of Philosophy.—The Platonic philosophy had hitherto prevailed in the Christian schools; and Aristotle was scarcely noticed: but in this period he supplanted his rival so completely, that Platonism was in its turn neglected and forgotten. The philosophy of Aristotle, thus adapted to the doctrines of Christianity, was called *scholastic*. At first it was very limited; being confined to a sort of logic termed *Dialectic*, and a singular sort of *metaphysic*; a mere tissue of abstract ideas, useless distinctions, and disputes about words. M. MEUSEL refers the reader, who wishes to have a complete idea of the scholastic philosophers, to Launoi, *De variâ Aristotelis fortunâ*; Tribbechovius *De doctoribus scholasticis*; Jonsius *De Historiâ Peripateticâ*; Tiedemann's *Spirit of speculative Philosophy**; and Meiners *De*

* This book is in German. See M. Rev. Appendixes to Vols. 20, 21, and 24. N. S.

Nominalium et Realium initu atque progressu, published in the Göttingen Transactions, 1793, 1794.

The principal scholastics of this period were Heldebert, Roscelinus, the famous Abélard, Hugo de S. Victore, Pullenus, or Pullein, John of Salisbury, Alexander Hales called the *irrefragable Doctor*, Albert the great, Robert Grossetête, Bonaventure, Thomas Aquinas, (called the *Angel of the schools*, or the *Angelical Doctor*,) Raymond Lulli, Duns Scotus, Durandus, Occam, Walther Burleigh, Burridan, Marsilius Von-Ingen, the celebrated Gerson, Ganifort, and Gabriel Biel.—The Arabs had their Wasel Ebn-Ata, Ibn-Baja, Algazel, Abujarfar, and Averrhoës.—Among the degenerate Greeks, we find Barlaam and Gemistus Pletho.

State of the Belles-lettres, &c.—Poetry, during this period, seems to have flourished chiefly among the Arabs and Persians. The most remarkable of the Arabian poets are Thograi, Hariri, and Al-Meidani; of the Persic, Ferdusi, Anweri, Sadi, and Hafez, called (not improperly) the Persian Horace.—Of the Greek poets, the author mentions only Theodorus Prodromus, Tzetzes, and Planudes. In the west, this period gave birth to the Provençal poesy, and to rhyme. The poets were called *Trovatori*, or *Troubadours*; i. e. *finders*; who flourished principally in Italy, Spain, and the south of France. For their history the curious reader is referred to Tiraboschi, Millot, and Antonio Sanchez.—The author forgets not the minstrels of Great Britain. William of Gloucester wrote a chronicle in rhyme, as early as 1280:—but our readers will learn more on this head from Percy and Warton than can be obtained from any foreigner.—M. MEUSEL gives a long account of the German and Scandinavian poets; to which we must refer our readers. We also pass over the section on the Italian poets, from Guinicelli to Boccacio; both because their history is well known in this country, and because this author's account of them is imperfect.

Statistics.—On this subject, M. MEUSEL says very little; and that little is of small importance.

State of Physics.—Albert the Great is the only writer of note, on this subject. Some of his works have been published, but a complete edition is yet wanting; and we are informed, by a German correspondent, that such an one is in contemplation.

State of Medicine.—The principal advancement of medical science in this period was derived from the study of anatomy; the father of which was Mondini de Luzzi, professor at Bologna, in 1315. His work on this subject was first published at Lyons in 1551.—The principal physicians of this period

‘The relations in which men stand with regard to God, and to each other, separate history into two kinds, *sacred* and *profane*; which will divide this work into two parts.

‘*Sacred* history comprehends *holy* and *ecclesiastical* records; which two united form a complete history of religion; of that religion which it certainly most concerns us to know. *Holy* history embraces all that period of time which elapsed from the creation of the world to the birth of Jesus Christ; which event happened, according to the generally received opinion, in the year 4004; and we call it *holy* writ because it was the work of men inspired by God. It is the proper history of the Hebrews, known by the name of the people of God. *Ecclesiastical* history, commencing with the birth of Christ, contains an account of the church from that time to the present.

‘*Profane* history comprehends antient and modern records. The antient, properly speaking, commences only at the epoch of the dispersion of mankind; that is to say, about the year of the world 1800; and finishes in the year 4004. Under this head, I shall give a general idea, first, of the great empire of the Assyrians: 2dly, of that of the Persians: and at the end of each, I shall speak separately of the different celebrated people who were their cotemporaries: 3dly, of the empire of the Greeks, whose abridged history will be followed by that of the different kingdoms formed out of its ruins. 4thly, I shall take a view of the Romans, from the foundation of their city, to the establishment of the empire; at which period, modern history commences. Under this head, I shall speak in succession of the most celebrated nations of Europe, Asia, Africa, and America. I shall begin with the Roman Empire; divided, in the three hundred and eighty fourth year after the death of Augustus, into the empire of the East and that of the West; and shall pursue the recital to the present state of the latter, now known under the name of the Empire of Germany.’

The chief merit of this work is the clear system which it points out for the study of history; and the principal and leading events are as judiciously selected, and as properly told, as the nature of a very concise abridgment will allow.—M. DOMAIRON shews himself to be a very zealous Catholic; inso-much that we cannot help applying to him what he says of Robertson, in describing that writer’s history of Scotland: ‘It is a pity that the author manifests such partiality, when he speaks of the Catholic and Protestant Religions.’ !

ART. XV. *Récherches sur l’Existence du Frigorifique*, &c. i. e. Inquiries concerning the Existence of a Frigorific Principle, and its common Receptacle. By J. P. BRES. 8vo. pp. 144. Paris, 1800.—Imported by De Boffe, London. Price 3s. sewed.

M. BRES is a sort of Manichean in chemistry, who opposes to one acknowledged power, another of a contrary tendency. He admits the existence of Caloric, but he contends for

for the admission of a Frigorific in return. We cannot discover, in his disquisition, any traces of a knowledge of the doctrine of *latent heat*; if he will make himself acquainted with this subject, it will solve most of his problems. The opinion which he supports, of the descent of frigorific particles from the clouds, is really not worth examining, after the late discoveries in pneumatic chemistry.—The poles, according to this author, form the general receptacle of frigorific particles.

We cannot deny M. BRÉS the praise of ingenuity, and we admit that his book is composed with correctness, and even with some degree of elegance: but there does not appear, at this moment, much more hope of the restoration of the frigorific particles, than of that of the French monarchy. It would have been well for mankind, if the species of warfare here employed had been the only one exerted in the other cause.

ART. XVI. *Instruction sur les Mesures et Poids Nouveaux, &c. i. e.* Information respecting the New Weights and Measures compared with the Old, furnishing an easy Method of ascertaining the Relations between them. By MATHURIN-JAMES BRISSON, Member of the National Institute, Professor of Natural Philosophy and Chemistry in the Central Schools at Paris, and one of the Commissioners for Weights and Measures. Small 12mo. pp. 130. Paris. 1800. —Imported by Dulau and Co. London. Price 1 s. 6 d.

THIS little manual will prove useful to foreigners, by presenting them, at one view, with the past and present denominations of quantity. The new terms, without such a ready explanation, are abundantly perplexing in books of science.—As this work consists almost entirely of tables, it does not admit of an abstract.



I N D E X

To the REMARKABLE PASSAGES in this Volume.

N. B. To find any particular Book, or Pamphlet, see the
Table of Contents, prefixed to the Volume.

A

ACIDS. See *Dabit.* See
Guyton. See *Thenard.*

of commerce, mem.
on strength of, 497. See also
Kirwan.

Air-vaults; phenomena observed in
those of iron works and blast
furnaces, 151.

America, obs. on the husbandry
suitable to that country, 226.

The culture of hemp recom-
mended in preference to that of
tobacco, 229. A good barn,
a capital object in the view of
an American farm, 230. Cu-
rious instructions for making
soup, 231. Several nations of
North American Indians de-
scribed, 352. Travels in Up-
per Pennsylvania, &c. See
Pennsylvania.

Ammoniac, phosphate of, best
process for preparing, 496.

Anker, Mr. on the manners and
customs of the Egyptians, 278.
Description of his personal
sufferings, from the Bastinado,
283.

Arcs. See *Brinkley.*

Arseniates of copper. See *Bournon.*
See *Chenevix.*

Asbes. See *Pissis.*

B

Bacon, Lord, eulogium on, 467.

Barmouth, a watering place in
Wales, described, 387.

Barytes, &c. See *Paize.*

Beet-plant, its saccharine qualities,
340. The culture of recom-
mended, and experiments on,
ib. See also *Castillon*, and *Su-
gar.*

Bembo, Cardinal, account of, 142.

Bertbollet, M. on nitrous gas, 494.

Biot, M. and M. *Cuvier*, on some
properties of the Galvanic ap-
paratus, 496.

Birds of Paradise, the breed of,
confined to the Spice Islands,
181. Sketch of the natural
history of, *ib.*

Borneo, account of that vast
island, 177.

Boulam in Guinea, the place
whence the pestilential fever
was brought to the West In-
dies, 369.

Bournon, Count de, on the arse-
nates of copper, &c. 243.

Bradley,

I N D E X.

- Bradley*, Dr. life of, 168.
Brand, Mr. his account of writings on the walls in the Tower of London, 415. His explanation of a seal of Netley abbey, 418.
Bread-fruit, some account of, 179.
Briggs, Dr. remarks on his case, 365.
Brinkley, Mr. his demonstrations of the theorems for the sines and cosines of multiple circular arcs, 2.
 ——— on the property of the circle discovered by Mr. Cotes, 11.
 ——— on fluxional equations, &c. 15.
Browne, Mr. on the Greek accents, 17.

C

- Calculus*, differential and integral. See *La Croix*.
 ——— of Derivations, 524.
Carradori de Prato, M. on the colour which lemon-juice communicates to paper, when heated, 497.
Castillon, M. de, on the culture of sacchariferous beet in France, 496.
Cavazzalli, M. on obtaining sugar from honey, 494.
Chaptal, M. on a new method of whitening linen, 495.
Charlemagne, state of legislative power under that great prince, 503.
Charles I. King of England, historical discussions relative to, 126. Character of, as drawn by Mr. Laing, 130. His supposed *Icon Basilike* a forgery, 133.
Chenevix, Mr. on the arseniates of copper and iron, 245.
China, brief sketch of that empire, 42.
Christianity, its progress compared

- with that of Mohammedism, 310.
Chrysostom, Dio, account of, and of his works, 195.
Crysolites, Siberian, some account of, 535.
Circle, demonstration of the property of discovered, (in the year 1716,) by Mr. Cotes, 11.
Clarification. See *Parmentier*.
Clergy, English, their exclusion from sitting in the House of Commons considered, 441.
Cochin China, some account of, 41. See also *China*.
Corn, investigation of the trade of, and its fluctuations exposed, 206. High prices of this article, and of other provisions, considered, 330.
Cottager, and his family, pleasing picture of, 101.
Cottagers, useful and serious remarks with respect to their habitations, 443.

D

- Dabit*, M. on acids, 492.
Delatre, M. on acids of commerce, 497.
Delunel, M. on distilled water of inodorous plants, 495.
Denne, Mr. on several antique inscriptions, 416.
Desormes and Clement, M. M. on the reduction of the white oxide of zinc by charcoal, &c. 495.
Digitilis. See *Fox Glove*.
Dio Chrysostom, account of, 195.
Divinity, mystic, origin of, 543.
Dogs, cats, &c. commonly used as the food of man, in the Eastern parts of our globe, 44.

E

- Earth*, investigation of certain theories relative to the figure of, 159.

I N D E X.

- Egerton*, Rev. Mr. his account of the Duke of Bridgewater's under-ground navigation, 342.
- Egypt*, political recollections concerning, by Mr. Consul Baldwin, 199. Mr. Franklin's account of Egypt, antient and modern, 204. Plague, whence usually imported into Egypt, 280. How guarded against by the *Jovial Friars de propaganda Fide* in that country, 281. Cruel despotism of the Government there, under the Beys, 282. Description of the arbitrary punishment by the *Basinade*, 283.
- Electricity*. See *Miller*.
- Elizabeth*, *Queen*, original letter from, to the Earl of Essex, 419.
- English*, their national character delineated, 423.
- Equations*, cubic. See *Meredith*.
- Equinox*, mem. on the precession of, 1. Sir I. Newton, on this subject, criticized, 2.
- Essex*, Earl of, original letter to, from *Q. Elizabeth*, 419.
- Evangelists*, their contradictions of each other, a proof that they were divinely inspired, 398. Their integrity, on this head, evinced. *ib.*
- ## F
- Family mill*, invention of, 341.
- Family oven*, *ib.*
- Fever*, yellow, American account of, 81, 91. Various means to be used for the prevention of the propagation of, *ib.* Methods of cure recommended, 370.
- , malignant, of the West Indies, first conveyed from the Coast of Guinea, 369, 370. Means of cure, *ib.* Of prevention, 371.
- Flaminius*, the Latin poet, character of, and specimens of his poetry, 143.
- Fluids*, velocity of. See *Taung*.
- Fourcroy*, M. united with M. M. *Vauquelin* and *Thenard* in new Galvanic experiments, 495.
- Fox Glove*, observations on the medicinal powers and effects of, 365.
- France*, travel in, 134. Remarkable account of the *Cadisini*, 138. Causes and effects of the revolution in that kingdom, 508.
- Franklin*, Dr. unfounded attack on his conductors, 358.
- Friendly Societies*, useful observations on, 444.
- ## G
- Galvanic experiments*. See *Fourcroy*.
- apparatus, memoirs on some properties of, 496.
- Gas*, a new one discovered. See *Woodhouse*. See *Berthollet*.
- Geographers*, the most eminent, previously to the advantages derived from the art of printing, 539.
- Germany*, antient, prerogatives of the Head of that empire, 21.
- Gin-seng*, account of, and of the places of its growth, 44.
- Gowrie Conspiracy*, historic notes relative to, 125.
- Greek accents*. See *Browne*.
- Guinea*, Coast of. See *Boulam*.
- Gummy substance*. See *Leroux*.
- Guyton*, M. on tartareous acid, &c. 491. On the cold combustion of the gaseous oxide of carbon, 495.
- ## H
- Hall*, Sir James, on Whinstone and lava, 153.
- Hastings*,

I N D E X.

- Hastings*, in Sussex, account of, 361.
Helvetia, curious extracts from the history of, 20—25.
Herschel, Dr. on the rays of heat and light, 68.
Hutchins, Mr. See *Silver*.
Holmes, Mr. his invention of a family oven, 341.
Horse-racing, a cruel diversion, degrading to the national character of the English, 428.
Hydrophobia, Dr. Rush's account of, 87.

I and J

- James I.* King of England, historic illustrations of his character, &c. 123. Mr. Laing's delineation of, 126.
Java, account of, 176.
Jests, from the new Joe Miller, 445.
Indies, East, accounts of, collected by Mr. Pennant, 37—53. Farther outlines of, 173.
Inflammation, obs. on a case of, 291—355.
Inspiration, of the scriptures, great diversity of opinions concerning, 372.
Ireland, obs. on the factions which have ruled there, 440.
Jurisprudence, state of, in Europe, in the middle ages of Christianity, 542.

K

- Kemble*, Mr. his theatrical merit, rivaled by Mr. Cooke, 334.
Kennedy, Dr. on three species of whinstone, 156.
Kirwan, Mr. on acids, &c. 12. On human liberty, 14. On the weather in Dublin, *ib.* Geological Essays, 380.

L

- La Croix*, M. on differences and series, 498.
Law, military, and courts martial, principles and practice of, considered, 261.
Leroux, M. on a gummy substance, 494.
Lever, improvement of, for the convenience of horse-carriages, 341.
Libraries, public, state of, before the invention of printing, 537.
Linen. See *Chapsal*.
Literary Journals, general remarks on, 424.
Literature, State of, in Europe, from the time of the crusades, to the reformation, 536.
Loggen, Mr. his account of the church yard in Milk-street, London, 418.
Love, that passion well discussed in a sermon, 257.
 — Palace of, a poetic tale, 276.
Loyel, M. on bleaching paper, 494.

M

- Madness*, medicinally discussed, 209.
Margueron, M. on oil extracted from the *cornus sanguinea*, 493.
Mathematical science, state of, in the middle ages, 540.
Mathematics, elements of, 408.
Maton, Mr. on the fall of some stones in Stonehenge, 416.
Medicine, state of, before the time of the reformation, 541.
Meredith, Mr. his new method of resolving cubic equations, 5.
Metaphysics.

I N D E X.

Mahadists, alarming account of the increase of their conventicles, 33. The sectarians defended, 104.

Miller, Dr. on the electric attraction and repulsion, 11.

Mills, for parishes, or particular families, 341.

Mill-stones, a quarry of, discovered at Conway, *ib.*

Molucca, described, 39.

Mountains, curious inquiry into the origin and formation of, 381.

Mudge, Capt. his account of the trigonometrical survey in the years 1797—1799, 74.

N

New Holland, some account of, 179. The selection of that country for the settlement of our convicts disapproved, 180.

Newmarket, races of, classed with the other cruel sports of the English, 428.

Nicholson, Mr. succeeds Dr. Enfield in compiling the "*General Biography*," 168. His account of Dr. Bradley; *ib.*

Noble, Mr. his obs. on Cecily, Duchess of York, 413. On a medal struck by K. Charles I. 414.

O

Oil, extracted from the cornus sanguinea, 493.

Opal, as found in Hungary, some account of, 535.

Ourang Outang, some account of several kinds of, 177.

Oxen, advantages of the use of, for tillage, compared with horses, 207.

P

Paise, M. on barytes and strontites, 497.

Paper. See *Loyse*. See *Carradori*.

Parmentier, M. on clarification, 394. On medicinal wines, 396.

Patrin, M. some account of, and of his edit. of Buffon's Mineralogy, 533.

Pegu, latest accounts of that country, 38.

Pennsylvania, natural productions of that country, 351. Travels in, 449. Tribes of the native Americans, described, 450. Dreams much regarded by them, 453. Remarkable story of, *ib.* Grand meeting of Chiefs at Onondaga, 455. Specimens of their oratory, *ib.* Traditional story of Wabemat, 458. Account of wooded Marshes or bog-meadows, 459. More Indian stories, 460. Manner in which they adopt a new member into their family, 461: Obs. rel. to the first discovery of America, 464.

Philippine Islands, account of, 178.

Philology, state of, in Europe, in the middle ages, 538, &c.

Philosopher, rural, poetically described, 237.

Phydias, his Olympian Jupiter, poetically described, 114.

Pissis, M. on wood ashes, 492.

Plague. See *Egypt*. See *Boulam*.

Platina. See *Proust*.

Playfair, Professor, on the figure of the earth, 159.

Pleasure, criminal, properly represented in Dr. Mackenzie's Sermons, 257.

Plombières, anal. of the waters of, 494.

Poetry, state of, before the period of the reformation, 541.

Portsmouth, notices of, with its harbour, &c. 363.

Pot-ash, how to be obtained from the ashes of white poplar, 492.

Priestley,

I N D E X.

Priestley, Dr. on the doctrine of Phlogiston, 250.
Prophecy, the nature and occasions of, considered, 270.
Proust, M. on Platina, 492.

R

Regulus, beautiful passages concerning, from Hoole's translation of Metastasio, 301.
Reinecke, M. on ascertaining the presence of lead in wine, 496.
Richborough Castle, remains at, 359.
Rochester, present Bishop of, his alarming account of the increase of Methodistic conventicles, 33. The Bishop. answered, 104.
Roebuck, Mr. on the air-vaults of iron works, 151.
Rue, Abbé de la, on the Life and Writings of Mary, an anglo-Norman poetess, 415.
Rural retirement. See *Villas*.
Rustall, Mr. his invention of a family mill, 341. His bolting machine, *ib*.

S

Seminaries, or schools of learning, state of, in the West, before the invention of printing, 537.
Series, recurring, authors who have treated of, 529.
Siam, described, 40.
Silver, account of the discovery of, in a cornish Copper mine, 243.
Singing, general obs. on, 148.
Sliding lever. See *lever*.
Soda, and *Ammoniac*, M. The-nard's account of the best preparation of the phosphates of, 496.
Sonnet, crit. rem. on that species of poetry, 146. Specimens of the Italian Sonnet, *ib*.

Springs, sulphureous, medicinal properties of, viz. Harrogate, Moffat, Aix la Chapelle, and Borset, 289.

Stonehenge. See *Maton*.

Strontites. See *Paize*.

Sugar, account of a method by which it may be obtained from Honey, 494. See also *Castil-lon*, and *Beet*.

Sumatra, account of, 174.

Survey, trigonometrical. See *Mudge*.

Taylor, Mr. on the culture of Beet, for making sugar, 340.

Tea, and tea-drinking, important remarks on, 430.

Testimony, force of, in establishing facts, 6.

Thenard, M. on the sebacic acid, 496. See also *Guyton*, *Vau-quelin*, and *Soda*.

Theology, State of, in the middle ages of Christianity, 542.

Tithes, the scheme for a commu-tation of discussed, 214.

Tonquin, described, 42.

Tower of London, account of inscriptions on the walls of an apartment in, 415.

Turks, disorderly state of their army in Egypt described, 315.

V

Vauquelin and *Guyton*, M. M. their report on the tartareous acid, 491.

— on the waters of Plom-bières, 494.

Village pastor, poetically de-scribed, 240.

Villas, country houses, &c. sketches of, for persons of moderate income, 163.

Walkden,

INDEX.

Walden Moor, Duke of Bridgewater's under-ground navigation there, 342.

Walker, Mr. on the production of artificial cold by muriate of Lime, 241.

Waters, mineral, the powers and properties of several, viz. Malvern, 285. Bristol hot-well, *ib.* Matlock, *ib.* Buxton, 286. Bath, 287. Sea water, 288. Chalybeates, *ib.* Cheltenham Spa and Pyrmont, *ib.* See also *Springs*.

Wey, Mr. his beautiful poetic Tale, 'The Palace of Love, 276.

Welsh bathing place described, 387.

Whinstone, chemical, exper. on, 157. See also *Hall*.

Wines, medicinal. See *Parmen-
sias*. See *Reinecke*.

Woodhouse, Mr. his chemical experiments, 493.

Y

York, Cecily, Duchess of, memoirs of, 413.

Young, Dr. on the precession of the equinoxes, 1.

— on the velocities with which fluids issue from their apertures, 5.

— on the force of testimony, &c. 6.

— on the primitive coloring rays in solar light, 10.

END OF VOL. XXXVI. OF THE NEW SERIES.



